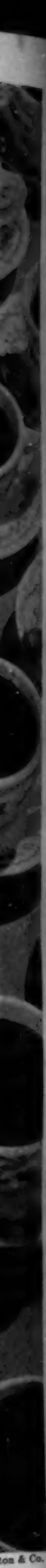

FOR BUSINESS OFFICIALS OF COLLEGES • UNIVERSITIES & RESIDENT ACADEMIES •

College and University Business

DECEMBER 1948: Being a Good Executive ★ Air Conditioned Science Hall ★ Fine Arts Building ★ Handling Student Activity Funds ★ Boiler Room Hazards ★ Technics of Business Management

THE CAMPUS LOOKS AT LABOR

DONALD E. DICKASON
Director, Nonacademic Personnel
University of Illinois

NOT TOO MANY YEARS AGO I WAS IN A GROUP of business officers of leading colleges and universities. We were talking about one of our number then absent. "He has unions on his campus!" was the horrified comment, in somewhat the same tones as would have been used in referring to his having typhoid carriers in his kitchens.

Now a lot of us have unions on our campuses, and they have arrived with a rush that has been not a little embarrassing to most of us. We have been annoyed by the tactics of union organizers; we have been disturbed by lessening respect for supervisory authority, and we have been hurt by the realization that our employes have turned elsewhere for the guidance we have felt we should give.

Yet most of us have come to a basis of adjustment. We have found that a union can be used as well as opposed. We have found that its members are still our own employes and that its leaders can help solve problems as well as stir them up. We have found a growing sense of responsibility within the union organization. But we have also found that we are being watched—and checked—and challenged. We work out an agreement, and we live up to its terms. We see to it that every individual employe gets his full and just rights. We do not permit personality differences to affect working conditions. We give to our employes accurately and in full the same benefits and privileges they would get in similar work outside of our campuses. We do all these things, or else!

We do not give away our rights, but we observe those of our employes meticulously. We lean over backwards to ensure fairness and justice. We behave in the way any upright and just and enlightened employer ought to behave, because if we don't we are certainly going to have trouble.

Silly, isn't it? What college or university worthy of its name wouldn't do that of its own accord without being forced to do it? Yet how many of us can search our campuses and be sure we shall not find at least a few inequities and inconsistencies and "special situations"?

A college or university is a peculiar organization. It is made up of a lot of semi-independent units operating pretty much as their respective heads direct. The attitudes and practices of these heads vary as they vary. And as they vary, so do their relations with those whom they employ.

What happens when an employe is sick, or wants a day off to go to the fair, or asks for a raise, or when school shuts down for the Christmas holidays, or when there is a lot of extra work to be done? How is the salary of the secretary for the department of modern languages related to that of the secretary to the director of the student health service? Can we get agreement on the part of all department heads using laboratory attendants as to the schedule of rates and working conditions to be used in all laboratories? The principle that such things should be handled on a basis of equality is accepted almost automatically in business and industry. It is often difficult to get agreement concerning them on the campus.

There are many things that may be done to discourage unionization on your campus. There are many others that must be done if it comes. But, common to both situations and equally important in either is the recognition of the fundamental principle that people want not only to be treated fairly, but to be treated alike, and that one of our most important and most difficult administrative problems on the campus is to see that this is done.

FOR BUSINESS OFFICIALS OF COLLEGES, UNIVERSITIES & RESIDENT ACADEMIES

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Your competence can be judged by the cooperation you receive in carrying out objectives of the organization.

HOW GOOD AN EXECUTIVE ARE YOU?

JEROME A. GOTTSCHALK

Assistant to the Director of Personnel Procurement
Booz, Allen & Hamilton

THERE IS SO LITTLE TIME IN BUSY lives that some of the basic principles on which our activities are founded are often forgotten. A review of certain obvious and basic concepts seems essential if we are to consider the technics of executive functions in the institutional field.

EXECUTIVE FUNCTIONS

The basic functions of an executive in an organization are three: (1) planning, (2) organizing and (3) controlling.

These functions permeate all levels of executive work in any type of organization. Institutions are not exempt simply because they are nonprofit in nature. The difference in functions is one of degree and extension rather than of kind.

The president must plan, organize and set up controls in terms of his major objectives, major organization, and major areas of control. These are far reaching and long range. At the other end of the executive ladder, the planning is more specific, the organization is more compact, and the control is more direct.

Planning is closely associated with clarification of objectives. Any executive who is responsible for planning the direction and goals of an enterprise or department is responsible for clarification of the related objectives to all persons concerned.

Under the organizing functions, the executive is responsible not only for the determination of the structural relationships necessary but also for the coordination of all factors related to the objectives to be achieved. In addition to the determination of structural relationships, it is a fundamental responsibility of the executive to staff the structure with competent personnel.

Control as an executive function may be defined simply as a means of regulating and constraining all elements involved in an organization in order to facilitate the achievement of the objectives.

SIX MAIN AREAS

In simple terms, the executive at any level carries out these functions by:

1. Deciding what he wants and how he wants it to be done.
2. Deciding whom he wants to do it.
3. Establishing the relationships of the people and things required to get it done.
4. Deciding who the best people are to do it.
5. Coordinating all the factors in order to get it done.
6. Appraising the performance and achievements in terms of the goals.

One of the major functions of an executive is his responsibility for the continuity of the organization. This can be done only through the development of understudies and the training of executives for advancement to higher levels.

It is the responsibility of every executive to find within his group, or to find outside and to bring into his group, the "best minds" available. He must select these best minds with the future of the organization in view to the exclusion of his own likes and dislikes and without consideration of personal advantage to himself. He must be willing to relinquish certain aspects of authority and responsibility when necessary to select, train and test the value of these minds to the organization.

Only through relinquishing authority and responsibility to these best minds is an executive able to multiply himself—to give the organization full benefit of his background and experience. Only through his ability to coordinate a multiplicity of responsibilities which he delegates to others can his full effectiveness be made available to the organization. The executive who refuses to permit others to contribute materially (by keeping unto himself all semblances of authority to act) is not an executive in the true sense of the word.

ANOTHER JOB

As an aspect of control, it is the function of an executive to be certain that he has all of the information necessary to plan, organize and control any phase of an organization under his jurisdiction. It is also his responsibility to ascertain that such information be made available to his subordinates in direct proportion to the responsibilities they bear. This is best thought of in such terms as investigation, information, advice, supervision and counsel.

It is the function of an executive to supply himself with staff within the organization that will contribute such aid.

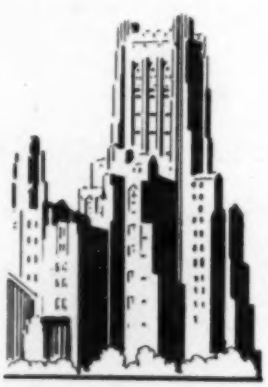
However, the executive should, on occasions, seek the help and counsel of professional persons who can analyze and recommend action concerning difficulties, confusions and relationships that are unsound. Such persons are able to reach conclusions free from prejudices arising within the organization structure and can devote their total energies and time to such problems. Such help results in more nearly adequate plans, structures and controls.

SERVICE COMES FIRST

Any organization has its basic objectives and the most important of these is that of the service it renders. The fundamental objective of any business enterprise is the rendering of a service as such or a service in the form of a product. In business the motivator for rendering such service is generally profit. Briefly, the purpose of a business organization is to render the best product or service, produced at a price that is acceptable to the consumer and at a cost that will render a reasonable profit to the investor.

In the institutional field, whether it is a university, hospital, clinic or any other agency, the basic objectives are also those of service. To a great extent profit to the investor in a tangible form is not a prime motivator. In this field the prime motivator of the organization as a whole is the rendering of a service to a community and nation. The rewards to individuals working in these institutional fields are as tangible as those of persons working in the industrial field, but the idea of service which is closely identified with the intrinsic purposes of institutions also acts as an incentive.

The task of executives, in either the business or the institutional field, is the rendering of the best product or service at the least cost. Quality



of the product should not suffer because of emphasis on reduced cost. This is especially true in the institutional field. The business executive attempts to reduce costs in order to meet competition and to increase the profit resulting from business operations. The institutional executive, bearing in mind that the quality of the service is paramount, must think of unit cost reduction as a method of improving the quality and coverage of the product (education, medical service, welfare service, and the like).

There is no real distinction to be made between the job of the business executive and that of the executive holding the responsibility for the operations of an institution, with one possible exception. For the most part, wages and salaries in most institutions cannot compete with those of the business enterprise. Thus, the competence of the institutional executive in his handling of people and providing them with inspiration and motivation must be as good or better than that of the industrial executive.

TEST OF COMPETENCE

A true measure of competence of an executive is the extent of cooperation he receives in carrying out the objectives of his organization. This cooperation can be measured in terms of the effectiveness with which he achieves the goals for which he is striving and the efficiency (the personal satisfaction of all persons concerned) with which they are achieved. This cooperation can result only through effective understanding of the human elements in organization.

EFFECTIVE UNDERSTANDING

Effective human understanding is not and cannot be merely an intellectual objectivity or a check list of knowledge points. *It is a dynamic accumulative experience that results from continuous study and appraisal of specific, as well as general, situations in the environment of individuals.* The textbook study of psychology never can be more than a foundation for such understanding.

The three important elements in the dynamics of such understanding are: the individual's understanding of himself, his understanding of the situation, and his understanding of the individuals in a situation.

An executive fails completely when he attempts to force his concept of the objectives of an organization upon the persons he has chosen to assist him in achieving results. If he does not understand himself, his likes, his dislikes, his prejudices, and if he does not understand the likes, dislikes, prejudices and immaturities of the individuals in a situation in re-

lation to it, he fails as an executive.

The understanding of the situation requires current knowledge of interdependent relationships at a given moment or a series of given moments under specific conditions. Because the facts related to such a situation are particular, contingent and specific, it would require examples and explanations too numerous and complex to be covered here.

Too many executives today do not realize that in the abilities of their subordinates they can find the answer to many problems if they will ask.

SECURITY IMPORTANT

In any organization an individual needs a feeling of security, a feeling of belonging, and a feeling of worthwhileness or individuality.

When the executive fails to clarify the objectives of the organization to the individual, the individual feels insecure. When the individual does not have a true understanding of what is expected of him, when he is not able to relate his efforts to those of the entire group and its objectives, he cannot feel secure in his position; he cannot see the need for his contribution and efforts and becomes uncertain of his value and future.

When an executive fails (because of pressure, blocked channels of communication, indifference to the work problems of his subordinates, or for many other similar reasons) definitely to delineate and to clarify the duties and responsibilities of those reporting to him, he is breeding discontent, frustration and confusion. When subordinates do not know clearly what is expected of them, they lose confidence in the persons who are directing their activities. *Tell people what you want and what you expect from them, and you will get results.* Too many executives today do not realize that in the abilities of their subordinates they can find the answer to many problems if they will ask for it.

Security is related to the ability to predict. Consistency in administration is of cardinal importance. Confidence in superiors is closely related to the consistency of their behavior. Many executives who feel that the position of an executive demands "action" are prone to be expedient rather than consistent in their administration of functions. In addition to letting subordinates know what is expected of them, it is important that an executive act in a manner that will permit his subordinates to know what to expect from him.

Consultative supervision or the overt recognition of subordinates' thinking on major problems confronting an executive results in a feeling of security on the part of subordinates and higher morale for the entire organization.

The successful executive must recognize that people are most effective in their operations when they feel that their activities are truly a necessary factor in the achievement of organization objectives. It is important for an individual to work in an atmosphere of approval. This atmosphere must stem from the personality of the executive. When individuals are contributing to an organization, it is essential that recognition be given to them for their achievements. Recognition should be given for their efforts, even though such efforts do not produce desired results.

SENSE OF BELONGING NEEDED

The executive whose attitude is one of interest only in results and not in effort and who does not take the time to counsel and to assist his subordinates in solving their problems can expect that his staff will feel that it does not belong. He must create an atmosphere that indicates that he is interested in recognizing any effort put forth with sincere desire for achievement. When the atmosphere is one of destructive criticism, and of disinterest in methods and efforts, it is impossible for people to feel that they belong to a group attempting to achieve group objectives.

WORTH-WHILENESS

A sense of worth-whileness or individuality results when individuals are consulted in the determination of objectives, principles, methods and procedures, when they are given responsibility, and when they feel they have a right to appeal on the basis of facts. Participation by subordinates in planning gives them a definite sense of contribution, worth-whileness and individuality. When a person feels that his—his very own—ideas are being considered in the total picture, he has a definite feeling of individuality, of the recognition of his worth. The executive who fails to delegate responsibility creates a feeling on the part of his subordinates of indecision, frustration and lack of individuality.

When an executive fails to recognize performance and when he fails to communicate this recognition to individuals, he undermines the individual's sense of worth, the sense of contribution to a cooperative effort.

The domination of all action and decision to the will of the executive is deadening. Without the responsibility to act and decide, the sense of individuality is lost and with it the desire to contribute. A recognition by subordinates that the authority of facts bears weight in their discussions with superiors gives them a sense of individuality as they relate the authority they derive from the facts they establish.

In summary of this one small area of understanding of individuals, try to understand people as an experience; clarify your objectives and your subordinates' relationship to them; let them know what you expect and what they can expect; assume an attitude of approval; consider their opinions; give them recognition for their achievements, and give them responsibility to act.

YOU, THE EXECUTIVE

Volumes could be written on understanding one's self. The following points are most essential in determining whether or not you are internally so structured that you can understand other people, their problems, and direct their activities.

Can you and are you willing to make up your mind? In other words, are you your own boss? No man can control the activities of other persons until he has control of himself. In making up one's mind, it is not only a matter of reaching a decision but a willingness to follow through with courage and integrity when a decision has been reached.

Are you willing to accept the responsibilities, the obligations, and the consequences that result from your own actions? A "buck passer" has difficulty in coordinating his own activities as well as those of others. The unwillingness to accept and to stand alone in the consequences resulting from one's behavior is a sure sign of immaturity and is unacceptable as a characteristic of an executive.

Are you objective about yourself and your work? Only when a man is able to view his job and the problems that arise from it—of both a material and personnel nature—without emotion is he able to do constructive work. The recognition that frustrations are a part of every job, the recognition that people react differently for many different reasons, and the realization that the executive must remain emotionally apart and not project his own personality variances into the situation are essentials for one who is to direct others in their work.

Have you made a compromise with life? No man has achieved everything he set out to do. When an individual fails to recognize and to accept the compromises that are essential to personal adjustment and is continually driven to project his frustrations on others, his ability as an executive is questionable. Years ago, Reade said, "The fathers ate sour grapes, and their children's teeth were set on edge."

On how many subjects have you closed your mind permanently? One who has learned absolute truths and feels there is no need for further learning about any subject is prone to be opinionated, stubborn and without potential for growth. It is only through openmindedness and willingness to hear all the evidence and consider all the facts that an executive truly can reach the decisions required of him. (If you can name one subject upon which your mind is permanently closed, view it as a danger signal in your personality structure.)

Do you unemotionally recognize and accept the indifference of the world to your own individual fate? The "indispensable" person has neither viewed his position objectively nor accepted the fact that the world is indifferent to the fate of any individual. The "indispensable" person assumes that people and factors that are governed by chance, which stand in his way, are the result of premeditation.

In the realistic world the "indispensable" person is frustrated by realism and develops a sense of persecution rather than recognition of the universal differences that exist. This sense or feeling of persecution stands in his way in his recognition of factors involved in the problems that he must solve for the organization. He is unable to contribute without a distorted perspective. His objectivity is lost, and his vision in relation to his objectives is fogged.

The institutional executive is faced with the same responsibilities and problems as those of his business or industrial colleague. The job is the same—the achievement of objectives in the most effective and efficient manner—the *best service* at the lowest cost. The answers lie in the people he chooses and his effectiveness in motivating them to give their best, willingly, to their part of the job to be done. Such motivation results from his understanding of himself, of the structures and tools required, and of the people involved, and his ability to make the relation of all three understood by all concerned.

It has been possible here only to indicate an outline of highlights for consideration by executives and administrators in meeting the problems of their organizations. As a basic outline it may well serve as a guide for further study and development on the part of individuals who recognize shortcomings. It may also act as a reminder or desk piece in the everyday handling of their work. For those interested in more detailed exposition of ideas touched on here, a small list of references is appended.

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THE JOB AND THE MAN

Modern technics for the business manager's office

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Business Manager
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NEW TECHNICS FOR THE COLLEGE business office are discovered in various ways. A study of present methods and policies from a critical point of view will often produce new ideas and better ways for handling the work. A visit to other college business offices will invariably give new ideas, or a personal letter containing questions about specific problems will get the desired information.

Helpful suggestions can be had from public accountants, commercial business offices, bankers and the sales representatives of commercial concerns. Improvements will develop in the minds of employes, who should be encouraged to seek new ideas by giving them responsibility and expressing to them appreciation for their help. Many departments of the college can be consulted and assistance obtained for the improvement of present methods.

ACCENT ON ACCOUNTING

Primary in the operation of the business office is the accounting system. Care should be taken to install a system that will cut the bookkeeping work to a minimum without sacrificing good records. The National Committee on Standard Reports has suggested a system of uniform accounting procedure for colleges and universities, which is used by a great many institutions. This system gives better and more concise records and conforms to report forms required by the government, the Methodist Church Board, and others.

Many colleges have adopted machine bookkeeping, either partially or completely. I recommend that it be done wholly. Machine bookkeeping gives better and more adequate records in one-tenth of the time of manual bookkeeping. With machine bookkeeping three or four postings can be made at the same time.

For instance, in one operation a student's account is credited in the ledger and on his monthly statement, which is prepared with the ledger sheet; cash is charged with the payment in the cash book and accounts receivable is reduced by the payment. Several persons should be trained in the operation of the machine. They can take time from their other duties to post up current work. Books are always in balance, which is not the case with the pen and ink method. The cost of a complete installation, including all forms, will approximate $4000, but the saving in man-hours will pay for the machine in a comparatively short period.

Other types of machines needed in the business office include adding machines, calculators, hand and electric typewriters, stencil duplicators, addressing machines, photostat machines, and dictating machines. Many of these machines were sold as war surplus.

It is amazing what modern machines can do in the business office in the way of giving more and better records, as well as saving labor. Consider the addressing machine. As the student enrolls, a plate showing his name and address is made up. This plate will be useful in many ways: in the registrar's office, the business office, the dean's office, and in other places. After the student's graduation the plate can be turned over to the alumni office for its records.

CAREFULLY PLANNED BUDGET

Mature consideration of the operational costs of the college is fundamental to efficient operation. There are some wealthy institutions whose expenditures are made without much regard for costs. This is true of any large organization. We are dealing, though, with our own circumstances which are not so financially comfortable as to allow us to forget that we must use judgment and be aware of our responsibilities. The budget should be carefully planned and revised in order to allocate funds judiciously to each department. After the budget has been worked out and the total estimated cost is realized, then the amount of funds necessary to cover these expenditures will be

known and fees and tuition costs can be determined. Some colleges base their tuition costs on what other institutions are charging; others, on what the traffic will bear. Both of these methods are obviously wrong in figuring tuition costs.

OTHER CONSIDERATIONS

Many other factors must be considered in figuring tuition and fees, such as depreciation of property and sinking funds for unforeseen contingencies. Costs on auxiliary activities should be checked carefully. Dining halls, cafeterias and stores should have monthly operating statements to determine whether they are paying their way; this also applies to residence halls and rental property. A recent inquiry among a few schools comparable to ours as to their charges for room and board disclosed a variance of $13.50 a month on room and $30 a month on board. I do not believe that much difference is justifiable on a cost basis among the communities. Either one institution is charging too little and is losing money or the other is profiting too much.

Matriculation is usually a long drawn out process for both student and college business office. Yet, this can be expedited by careful advanced planning. As complete information as possible should be given to freshmen at the time of registration. Registration cards should have full explanation of what is necessary for enrollment. A great deal of preliminary work should be done, such as advance registration, which will show the student's courses and class schedule.

When a student approaches the business office he gives his name and pays the proper fee as shown on his registration card. All fees should be consolidated in a lump sum as far as possible. Nothing irritates a student, or parent, more than the paying of fees every time he turns around.

There is some necessary delay when the student discusses the matter of deferred payment plan. To eliminate as much of this as possible, a letter should be written to each student beforehand stating the policy of the college with reference to deferred payments and asking that he state his choice of payment. Upon the completion of his registration, the student is given his receipt, cards for admission to classes, and a schedule showing time of class, room and course.

Collection of student accounts can be a burdensome task but, by establishing sound principles and adhering to them, collections can be made as simple as paying a note at the bank. The first step is to set up a policy and then to state it in the college catalog, handbook, form letters, or registration cards. A thorough understanding with the student and parent beforehand and an explanation of the college policy to the freshman class during freshman week will reduce the collection problem to a mere routine.

A policy of requiring payments each month on deferred tuition is advisable; certainly all payments should be in before the student takes

his examinations. A student loan may help the student through his examinations, but it should be secured by an endorsement.

For colleges that have been unable to build up loan funds, I have a suggestion that has proved to be a fairly good method of establishing one. It has been my experience that student accounts not collected before final examinations are taken are practically worthless. Nor can they be collected by legal methods without seriously endangering good will. Some of these accounts are paid, however, and such funds might well be set aside as the nucleus of a loan fund. For the reasons stated, it would not be as if they were taken from current funds, as they can rightly be charged off. But if such a fund is attempted and husbanded, it can become sizable within a few years.

PROBLEMS OF INSURANCE

Insurance is an old problem but one with many new technics. The business manager may well be puzzled as to the proper decision on many questions arising out of his responsibility to arrange properly and adequately for the protection of the properties belonging to his institution.

In the past it was not too difficult to arrive at a fairly accurate value on buildings by consulting a friendly contractor, architect or insurance agent who usually had sources of information enabling him to make a sufficiently accurate estimate of the replacement cost of the various buildings. In these days of constantly shifting costs such an estimate shortly becomes obsolete.

CO-INSURANCE CONTRACT

Because the use of the co-insurance contract on policies covering properties under fire protection entitles one to a liberal reduction in the rate, it has been our custom in the past to use the contract without giving sufficient importance to the penalty we might incur by its application in the settlement of a loss. The co-insurance contract is a warranty that the insured will, at all times, maintain insurance equal to the fixed per cent (usually 80) of the insurable value of his buildings. This insurable value is replacement cost, less depreciation, and the insurable value of even so short a time as six months ago is already out of date.

Without unusual facilities for the constant adjustment of building values, it is probably best to consider the advisability of paying a no co-insurance rate for insurance, at least until such time as building costs have been stabilized, and thus avoid the possibility of being penalized by having to contribute to a loss because of failure to meet the requirements of the contract. The institution will then collect the amount of its loss, should one occur, up to the face of its policies.

Policies should be written for a longer term than one year because of the amount saved. Additional years may be added to the term of the policies at a savings of one-fourth of the annual premium on each year over the first one, *i.e.* three-year contracts for two and a half annual premiums or five-year contracts for four annual premiums.

I suggest the necessity of full cooperation with the rating bureaus in order that fire insurance rates may be as low as possible. Ask for their recommendations and follow them as closely as may be practical; see to it that fire extinguishers are sufficient in number and properly distributed; that janitors and maintenance men are cautioned against permitting oily rags or other waste to accumulate in

closets and dark corners and are warned about the dangers incurred in the use of oversized electrical fuses or the use of pennies behind burned out fuses—a practice all too common and the direct cause of many fires.

In connection with fire and lightning policies, there is now available the "extended coverage endorsement" which provides protection against such additional hazards as windstorm, hail, explosion, riot, riot attending a strike, civil commotion, aircraft and vehicle damage. The cost of this protection varies with the type of building construction and whether or not the coinsurance contract is used.

While we look upon fire insurance as our basic protection, there are other types of insurance to which the business manager must give proper consideration if he would protect himself from criticism by his trustees for not having properly evaluated the hazards to which his institution is exposed. A few of the many types of protection available for his consideration are:

1. Workmen's compensation insurance.
2. Boiler insurance. This must be considered not only from the standpoint of damage to the institution's property and the property and person of others, but also from the particular value of the inspection service that is a part of the contract. Proper inspection at regular intervals and the correction of improper firing methods, deficiencies in water supplies, and such things will add years to the life of boilers and prove a satisfactory investment.
3. Forgery insurance.
4. Burglary insurance.
5. Nonownership automobile insurance.
6. Public liability insurance.
7. Fidelity bonds.

I have attempted to give some of the forms of protection by insurance. There are others, of course, of more or less importance. If, however, a responsible agent is chosen, he can be consulted on any matter pertaining to the institution's insurance. No insurance, however, is of complete value unless an accurate inventory of the institution's property is kept to supply information in the event of a fire loss. A detailed inventory should be made every three to five years, although the head of each department should keep annual inventories for verification purposes.

An inventory may also serve another useful purpose: It will be easier to prevent the misplacement of equipment and furniture, inasmuch as there will be reluctance on the part of department employes to lend materials if they know a check is made and, in the event they do lend them, they will be quickly discovered in the inventory.

FRIENDS WITH FACULTY

Occasionally I have heard business managers speak disparagingly of some members of the faculty. We must remember, however, that they lack the special training of the business manager and from their point of view we seem just as inadequate. The business manager should make a definite effort to win the confidence and support of the faculty members for they can aid him by cutting corners and saving money. Actually, he is acting as a steward for the faculty as well as for the trustees. Occasional reports at faculty meetings on such matters as enrollment, income and expenses will build faculty confidence and create greater interest in the financial administration of the institution. It is not necessary to make such reports in great detail; they can be given in approximate figures.

RAISING MONEY

Not every business office has the responsibility of raising funds for the institution, but all can assist in such programs, if in no other way than by careful budgeting and good buying. These can mean the difference between a deficit and closing the year with a balanced budget.

At the University of Chattanooga the business office participates in the planning and conducting of a campaign annually for a "living endowment." A letter is written to all prospective donors before the campaign is publicly opened and the larger portion of the fund comes in response to these letters. Our alumni and the citizens solicited have become accustomed to including this donation in their budgets along with their church dues and community chest pledges. The general campaign is so set up that each worker can complete his solicitation in about one hour. The consequence is that none feels it to be a hardship and each is agreeable to working for this cause. The amount obtained has enabled us to balance our budget in some difficult years.

BUDGETING ONE'S DAY

Efficiency is an old word but comparatively a new technic in many college business offices. If the business manager is alert to his job he will find that he can save many man-hours in the proper scheduling and dispatching of his work. There should be a certain time for answering mail, writing collection letters, and for various routine matters. There should be a time for writing and signing checks. A certain time should be given to the consideration of requests from the faculty and students, a time for staff conferences. By the proper budgeting of time much more can be accomplished than with a haphazard method.

A business manager is in the capacity of a training officer, striving to obtain the best results from the administrative staff. He should possess a pleasant personality and ability to understand sympathetically those with whom he comes in contact. I am convinced that, if at all possible, he should teach a class occasionally in order to keep closely in touch with both faculty and student points of view. These human qualities are a part of the technics of the business office and its efficient operation. They are possibly as important as is knowledge of the more mechanical operations. To be completely successful, all should be combined in one person to achieve the ideal. As we are but human, after all, that may be expecting too much. We can, however, strive toward their accomplishment.

The closer we come to these ideals, the better business office managers we shall be, and the institutions for which we work will show the effect in better relations among those who compose them — administration, faculty and student body. It is a difficult task but one worthy of our sincerest efforts.

Handling *Funds* for STUDENT

A COLLEGE HAS A RESPONSIBILITY to supervise the handling of student activities funds. This derives from the fact that such funds either are collected by the college itself, such as in the form of a compulsory fee, or are raised by student organizations which are authorized by the college and which use the college name. The responsibility involves seeing to it that collection, maintenance and disbursement of student activities funds are performed according to accepted business standards and that appropriate accounting is made.

The responsibility of the college can be met in a variety of ways, ranging from a program whereby each student organization keeps its own funds in a bank of its own choice and furnishes a satisfactory accounting to the college to a system in which the college maintains all funds in a business office and undertakes direct responsibility for disbursement. In deciding on the method of supervision to be employed, the educational aim of the college should be considered.

CAMPUS ACTIVITIES IMPORTANT

Educators are becoming increasingly aware of the importance of campus activities outside the formal classroom as an integral part of collegiate education. These activities, most commonly termed "extracurricular," are extra only in the sense that as yet few colleges, if any, require participation in such group activities to obtain a degree. One should not ignore the opportunities in such activities, however, to help the student become a well rounded citizen.

A system under which student organizations handle funds themselves but are counseled and their records audited by qualified specialists might produce the maximum educational value. It probably would also cost the most. At the other extreme, a mechanical and unfeeling handling of student activities funds by a college business office is likely to cost the least but also to educate the least. A policy lying somewhere between is likely to have the most satisfying results considering the two aspects of educational value and cost.

In the following paragraphs I shall try to describe the program at Brooklyn College, indicating what procedures are followed and why, with the thought that we are trying here to provide valuable educational experience and training at a fair cost. The central depository functions at Brooklyn College as an integral part, conceptually and physically, of the student activities office, rather than in the business office of the college. This arrangement offers the following advantages.

1. It greatly facilitates the coordination of student activities guidance. The faculty of the office serves in adjoining and connected rooms and thus can consult more easily. This also makes it easier for students to handle their student organization business. A student coming to plan a social affair can reserve a room with the secretary; discuss the program, refreshments and arrangements with the social affairs adviser; place an announcement in the college bulletin; work out a financial budget, and arrange for the printing of tickets and the handling of tickets and funds with a member of the staff of the depository. All this is accomplished in one office.

2. It permits the faculty of the student activities office to take advantage of the fact that finances play such a significant rôle in student organization activities. This works two ways. First, many guidance problems other than financial come to light in the course of the financial counseling. These problems might not come to the attention of the student activities office if the depository was not located there. Second, the other counselors in the course of their conferences with students uncover many instances of problems that are primarily financial. Referral of a student to the depository is much more effective than if it were located elsewhere.

3. The proper handling of student organization finances is as much a matter of teaching and guidance as it is of caring for funds. As part of the student activities office, the depository staff is composed of teachers and other individuals trained in the area of student organization guidance as well as in finances. At all times they are aware of their educational responsibilities. Students are not merely taught the rules and procedures, but the staff also endeavors to have them understand the need for these accepted business practices.

The counseling is continuous. It begins for the individual treasurer when he is called in shortly after his election to have his responsibilities explained to him. He is invited to return whenever he has a question in his mind or when a problem arises. His payment orders and deposit slips are examined when they are presented, and if there appears to be any lack of understanding by the student, it is clarified at that time or at a special conference.

In addition, treasurers are called in two or three times during the year to check their records against those of the depository and to see how the records have been kept. These interviews, as well as conferences on budgets, also provide occasions for development of understanding.

COOPERATION

The attitude of the depository as well as the rest of the student activities office is one of cooperation with the students; supervision is exercised in the sense that reasonable and accepted rules are enforced for the benefit of all concerned: individuals, organizations and the college as a whole. The original rules were worked out with a student advisory committee. Subsequent minor changes within the spirit of the original rules were made without consultation, but all important changes of policies or procedures have been worked out with the student advisory committee.

The work of the depository is supported in large part from a compulsory student activities fee; for this reason no charge is made for regular

ACTIVITIES

DANIEL LIPSKY
Dean of Students
Brooklyn College

services to student member organizations. There are other organizations, such as the men's and women's athletic associations and the loan fund, which also belong to the depository. These groups pay a service charge. The depository, because of limitations of staff, cannot yet accommodate all student organizations on the campus. Most or all of the groups handling the larger sums of money are members, however; ultimately it is expected that membership will be made compulsory.

Collection of Funds: The rules provide that *all* funds of a member organization must be deposited promptly. Aside from allocations from the compulsory fee, receipts of student organizations are derived mainly from dues, admissions, sale of advertising, sale of publications, and, where a charitable drive is being conducted, from contributions. As much as possible, standard audit procedures are employed by the depository to verify these receipts.

For example, admissions tickets are ordered through the depository and are serially numbered. All tickets are accounted for. Similarly, examination is made to determine that the amount of money deposited tallies with the quantity of magazines or yearbooks printed and the number remaining on hand.

The depositor in making deposits is required to fill out a deposit slip in duplicate. The duplicate is initialed, numbered and returned as a receipt.

Maintenance of Funds: All depository receipts are deposited in turn in a single account with a regular commercial bank. For purposes of internal control, disbursements are not made from this account but rather from one of two imprest checking accounts or from one of several imprest petty cash accounts. A portion of the total funds is transferred from the main commercial bank account to various savings banks for the interest income.

Two signatures are required on all depository bank accounts, with the exception of the imprest checking accounts. However, replenishment of the imprest accounts is made only from the main account and two signatures are required for replenishment.

Disbursement: A payment order is presented to the depository in duplicate by the member organization to effect a disbursement. This order must be signed by the treasurer and the faculty adviser of the organization. The treasurer by his signature certifies that the disbursement has been authorized in accord with the rules of his organization. He also accepts his responsibility to obtain bills promptly and to submit them to the depository. The faculty adviser by his signature indicates that the disbursement is appropriate for the organization, the amount is reasonable, and that, to the best of his knowledge, it has been properly authorized. The payment order contains space for explanation of the expenditure so that classification can be made.

Bills, or suitable explanation, are required on all disbursements and are kept with the original of the order in the depository. Organizations are expected to call for competitive bids where appropriate, and these bids are also filed with the depository.

SOME PAYMENTS IN CASH

Payment is made usually by check, but when no advantage is served and when the amount is not too large, payment may be made in cash. Checks are drawn within twenty-four hours and are picked up by the organization together with the duplicate copy of the payment order for its records. Cash payments are made immediately, and the duplicate also is returned at the same time. Depository serial numbers are written on all duplicates.

For the convenience of the organizations and to reduce the work that would be involved in handling small items, small petty cash funds are issued to treasurers of organizations. These are treated on an imprest basis and are replenished by means of a regular payment order to which bills have been attached.

Budgets: The payment of funds is, in many instances, less significant than the actual incurring of the financial obligation, particularly when larger sums are involved. Organizations are required to prepare an acceptable budget with the depository before incurring any large obligation. The signatures of the treasurer and the faculty adviser of the organization are obtained on the original copy of the budget, which is kept by the depository. Thereafter expenditures may be made *within* the budget on signature of the treasurer only.

Audit: The audit of the member organizations is relatively complete and is continuous rather than periodic, as may be seen from the procedures described under collection of funds and disbursement. The internal audit of the depository itself is also continuous and is obtained by allocation of duties to provide check of one member of the staff on the other.

CHECK RECORDS

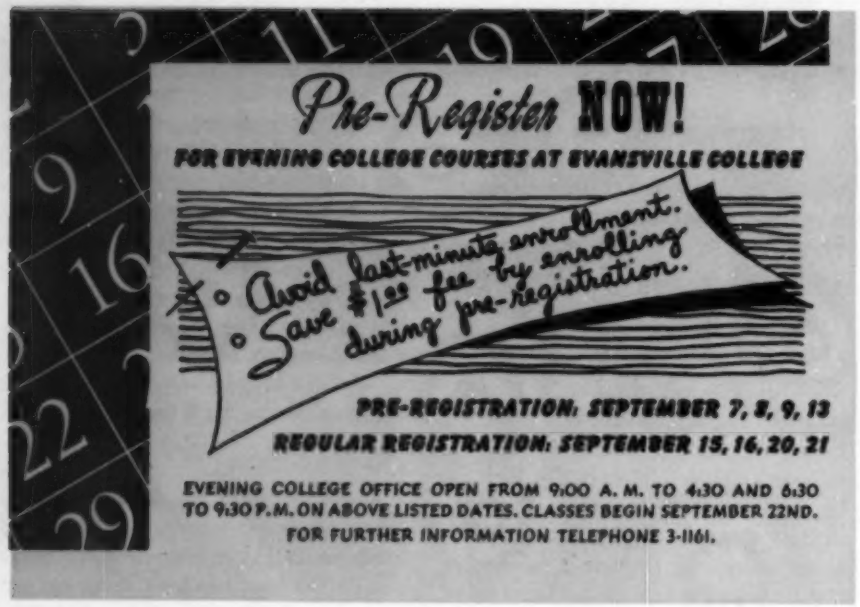
One element of the depository audit takes place when organization treasurers are called in two or three times during the year to check their records against those of the depository. The external audit of the depository has been periodic and is made by the auditing staff of the board of higher education, the agency in charge of the four municipally operated colleges.

Reports: Facilities do not permit the rendering of monthly statements to member organizations. However, an annual report is prepared that includes a classified statement of receipts and disbursements for each organization. The classification is a continuous process by means of multicolumn ledger accounts so that a financial picture can be obtained at any time during the year by inspection of the ledger account.

Guaranty Fund: A number of interesting projects are carried on by the depository in its efforts to facilitate student activities at Brooklyn College. One of these is the guaranty fund. Through this fund the college is guaranteed against embarrassment if a member organization should lose more money on a project than can be covered by its financial resources. This guaranty is automatically effective whenever a budget is approved. A charge is made depending on the amount of financial risk involved, and this goes to maintain the guaranty fund.

Participation in student organization activities provides valuable educational experience that cannot ordinarily be obtained in the classroom.

HOW EVANSVILLE WON


Pre-Register NOW!
FOR EVENING COLLEGE COURSES AT EVANSVILLE COLLEGE
• Avoid last-minute enrollment.
• Save $1.00 fee by enrolling during pre-registration.
PRE-REGISTRATION: SEPTEMBER 7, 8, 9, 13
REGULAR REGISTRATION: SEPTEMBER 15, 16, 20, 21
EVENING COLLEGE OFFICE OPEN FROM 9:00 A. M. TO 4:30 AND 6:30 TO 9:30 P.M. ON ABOVE LISTED DATES. CLASSES BEGIN SEPTEMBER 22ND.
FOR FURTHER INFORMATION TELEPHONE 3-1161.

Mailing piece to promote Evansville's evening college. On oversized post card stock, it is printed in moss green.

HAROLD VAN WINKLE
Director of Public Relations
Evansville College
Evansville, Ind.

THE TELEGRAM READ, "JUDGES SElected your direct mail campaign as the best of educational industry for 1948." It was signed by Charles B. Konselman, president of the Direct Mail Advertising Association in New York.

The Evansville College entry that won "the best of education" award consisted of a campaign that was actually a continuing program throughout the year and took the form of numerous individual, co-related mailing pieces covering many aspects of the college and its position in the community. The purposes of this campaign were as follows:

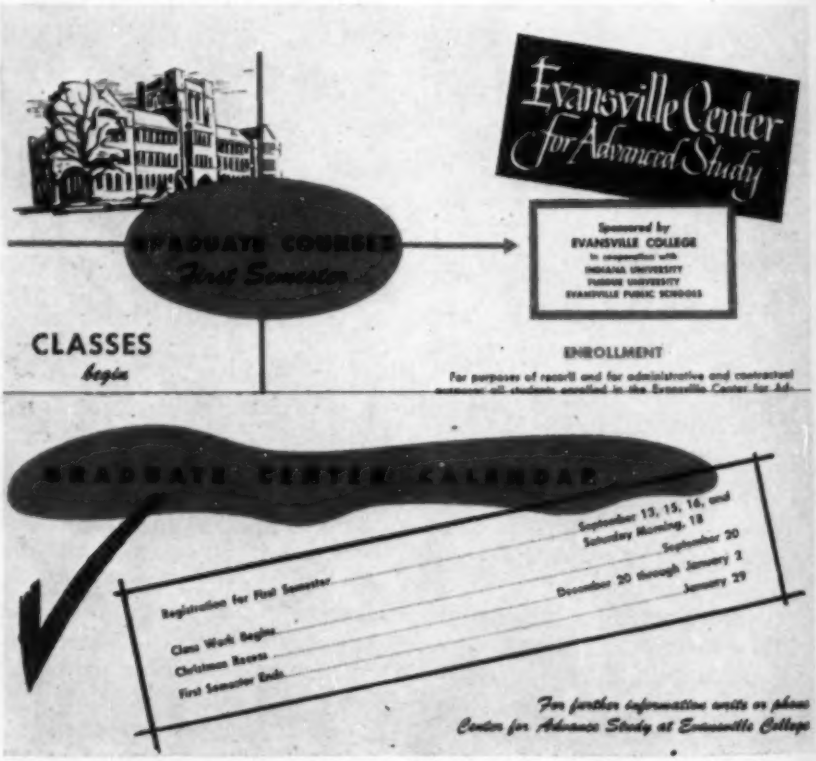
1. To create and maintain community good will toward Evansville College as a means of the college's fulfilling its obligations to its constituency in the field of higher education and obtaining continued financial support and social approval.

2. To attract students to study at Evansville College by informing them of educational offerings and advantages in both the regular day college and the adult division.

CONTINUOUS PROMOTION

This type of promotion, diversified and continuous, is particularly needed by Evansville College. The college is located in a city of 130,000 with no other four-year college within a 30 mile radius. Most of its students live at home. The college derives no support from public funds and does not have a large endowment.

An important function of Evansville College is serving the community, which includes the city and the surrounding Tri-State area. Through its urban pattern of education the college has achieved this aim in a high degree. Some of its trustees are elected by the local chamber of commerce, some are elected by the Metho-



Folder enumerating the college's graduate courses and listing admission requirements, general regulations, and other details of advanced study.

THE DIRECT MAIL AWARD

dist church, and the remainder are elected by the board itself composed of trustees elected by these two groups. Evansville College's buildings have been erected through gifts by thousands of local citizens, businesses and industries.

The enrollment in the regular day college this fall is 1614. But there are 1506 other students enrolled in the adult division and in classes outside the traditional college. These include classes in science for student nurses in the city hospitals; aviation ground school classes for the local flight services; private music lessons for all ages; a graduate center; an evening college with a wide variety of offerings, and extension classes in industrial plants in the city and in neighboring cities.

SERVES THE COMMUNITY

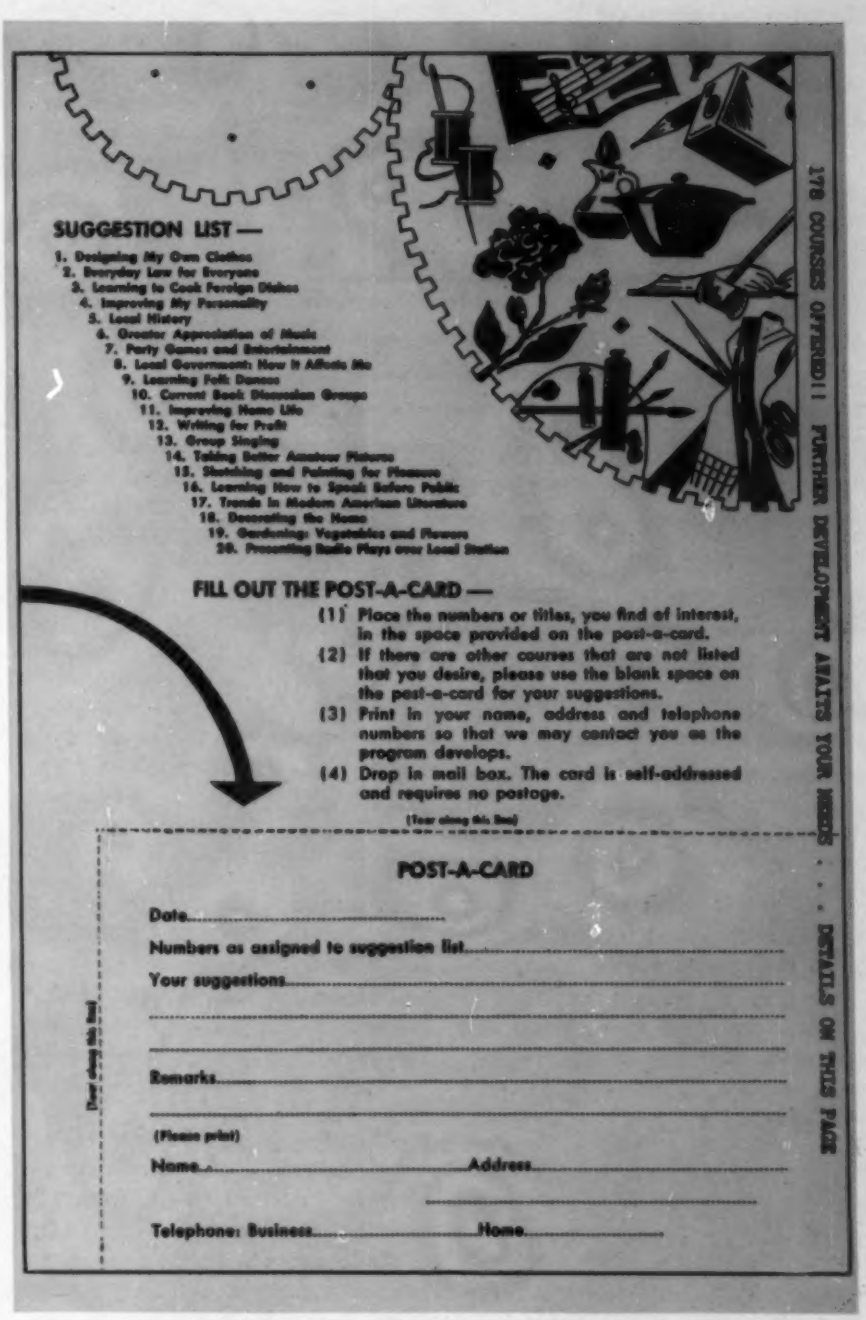
Evansville College tries to overlook no opportunity to be of service to the community, within the limits of a college, and it believes it has the duty of keeping the people informed about its activities and offerings.

At the beginning of the "contest year" (September 1947) the college had just completed construction of a $700,000 engineering-science building with funds donated by the community. This was the first permanent building erected on the campus in twenty-five years; the money was raised by means of a major campaign.

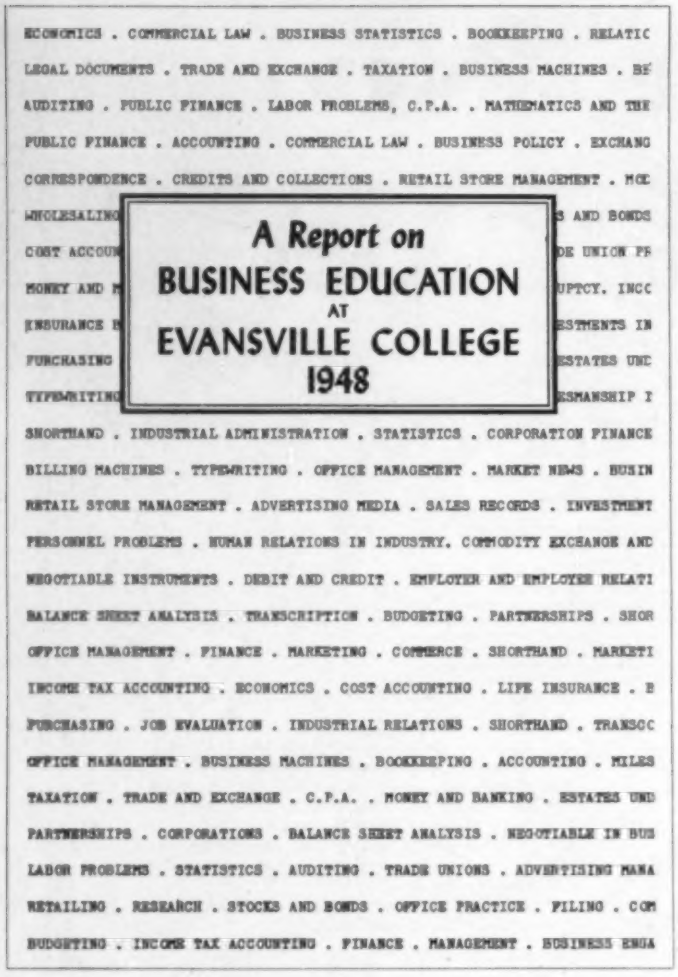
Two phases of promotion naturally evolved from this situation. One of them called for giving recognition to this achievement—to this "monument to community cooperation"—and for ensuring the maximum use of the new building by as large a part of the community as possible in the fields of engineering and science.

The second called for added effort in informing the community of activities and progress in the college outside the fields of engineering and science. This may seem like carrying water on both shoulders at the same time, and in a sense it was. But the reason is plain: The promotional program necessary to raise $700,000 —necessary to convince the community that such a building was needed —placed a lot of emphasis on technical education. In fact, the program overshadowed all other college activities for the time. Therefore, in order that the people of the community would not get the impression that the college was becoming a technical and scientific school, it was necessary that cultural education and other facets of the college be given additional emphasis.

A proper balance of publicity and promotion is of utmost importance. We could not maintain that balance while a major financial campaign was in progress, but we did our best to regain it. No college can afford to


178 COURSES OFFERED!! FURTHER DEVELOPMENT AWAITS YOUR NEEDS . . . DETAILS ON THIS PAGE
SUGGESTION LIST —
1. Designing My Own Clothes
2. Everyday Law for Everyone
3. Learning to Cook Foreign Dishes
4. Improving My Personality
5. Local History
6. Greater Appreciation of Music
7. Party Games and Entertainment
8. Local Government: How It Affects Me
9. Learning Folk Dances
10. Current Book Discussion Groups
11. Improving Home Life
12. Writing for Profit
13. Group Singing
14. Taking Better Amateur Pictures
15. Sketching and Painting for Pleasure
16. Learning How to Speak Before Public
17. Trends in Modern American Literature
18. Decorating the Home
19. Gardening: Vegetables and Flowers
20. Presenting Radio Plays over Local Station
FILL OUT THE POST-A-CARD —
(1) Place the numbers or titles, you find of interest, in the space provided on the post-a-card.
(2) If there are other courses that are not listed that you desire, please use the blank space on the post-a-card for your suggestions.
(3) Print in your name, address and telephone numbers so that we may contact you as the program develops.
(4) Drop in mail box. The card is self-addressed and requires no postage.
(Tear along this line)
POST-A-CARD
Date.....
Numbers as assigned to suggestion list.....
Your suggestions.....
Remarks.....
(Please print)
Name.....Address.....
Telephone: Business.....Home.....
(Tear along this line)

Heavy end sheet of forty-page catalog listing the courses offered by the evening college and inviting suggestions from those interested in others.



Cover of an eight-page promotional piece for the business education courses being offered.

let the people think of it as simply an afterthought to a football stadium or an engineering school.

To give recognition to the new building, we held open house and dedication. For this occasion a souvenir booklet, "Dynamo to Power a Community," was prepared. Profusely illustrated, it described the new building and set forth its potentialities for education and community service. Also, a pictorial map of the campus was printed. These two items were given to visitors during open house, and additional copies were mailed to friends and alumni who were not able to visit the campus, and to high school seniors who might be interested in attending the college.

In the spring we had a science day, to which we invited the public and especially high school students. The object was to show the community how the new building was being used. We prepared more than 100 exhibits and demonstrations for the occasion. No attempt was made to solicit visiting high school students to attend Evansville College after they were graduated. Instead, we tried to show them interesting, stimulating things in science.

Two months later we published a booklet describing a new curriculum, "Industrial Technology," made possible by the new building. This booklet served two purposes: it informed the community of what the college was doing and it told prospective engineering students what Evansville College was offering them.

While this was being done in the fields of engineering and science, other facets of the college were being promoted. All musical and other cultural events were well publicized. Direct mail pieces on music, on art, and on radio were printed and distributed. The Great Books course was inaugurated in the evening college. Promotion for this course served not only to get people interested in taking the course but also to let the community know that the college was concerned with more than just technological education.

During the spring the college social center invited seniors from the four local high schools to high school nights at the temporary union building. Each school was given a different night, about a month apart. Invitations were printed in the school's colors and were mailed to the students' home addresses. Each was personalized, the name of the student being lettered in color on the top flap of the invitation.

Eight separate mailing pieces, plus numerous personal and duplicated letters, were used during the twelve-month period to promote the adult division—evening college and graduate center. One reason for the need for much promotion here is the fact that there are many more people outside the traditional eighteen to twenty-four year college age group than there are in that age range, and many more interested in an evening class or some special instruction than in attending day college full time. In fact, the ceiling here is almost limitless. Hence, finding out what people would like to study and arranging for the instruction, and then letting them and others know what is available is a tremendous job, a job in which promotion plays an important part.

Finally, college catalogs are basic promotional pieces for any college. Evansville College publishes three yearly: one for the regular day college, one for the evening college, and one for the summer session. Each spring an attractive placement bulletin is sent to prospective employers.

OTHER PROMOTION

Of course, we used other media of promotion besides direct mail in connection with all our activities. Each phase of the program was adequately supported by publicity, radio programs and announcements, display advertising, posters, signs, anything that fitted in with the program and did not unbalance our budget.

I like to think that our promotional program, which D.M.A.A. rated "best," added to our growth and success during the last year. We have more students and more buildings and a larger faculty than ever before, and we have $500,000 in gifts and pledges for our next permanent building.

As long as the people of our community keep investing in their community college, we are going to continue keeping them informed on what we are doing with their investment and how, in many instances, it will help them or their sons and daughters directly.

APPLYING THE SPECIFICATION TECHNIC IN *Purchasing*

ALEX TALLER

Assistant Business Manager
City College of New York

PURCHASING FOR COLLEGE USE PRESENTS problems similar to those met in industrial situations. The procurement function is possibly more often centralized in the outside business counterpart of the college purchasing function. Essentially in both situations, the purchasing department performs a service function consisting chiefly of providing proper and adequate materials and equipment required for use by the institution at the best possible price. The question of price in good buying practice is judged only in its relationship to quality. A better and more descriptive phrase is, buying at the "lowest use cost."

OTHER TECHNICS

In order to perform properly, the college buyer or purchasing agent must have a definite method for defining and describing the quality of the materials or articles in demand. There are various methods for describing the necessary purchasing characteristics of the articles in question. These include sample, brand and specification. The selection of the descriptive method is largely dependent upon the buyer's experience and judgment as applied to the needs of the particular purchasing situation. The material presented herewith is intended only as assistance to the buyer in making a choice of quality definition.

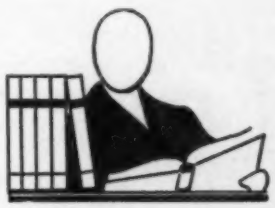
Sample buying is easy and direct, but sometimes dangerous. Individual samples selected as purchasing exhibits do not always conform to the quality being requested. Testing and comparison of the delivered product are rendered difficult at times by the deterioration of the sample.

In brand buying the buyer asks for a particular branded article as manufactured by a certain manufacturer. This method gives one a fair assurance of quality depending upon the reliability of the firm making the product. It eliminates to a large extent the complexity and expense of specification buying.

Brand buying is especially adaptable to small quantity purchases. Brand buying for large quantity purchases, however, has the basic disadvantage of restricting competition. Such restriction results in a loss to the buyer of the gains attained through lower prices that usually come as the result of an open competitive field for purchases.

Specification buying involves the provision of a complete technical description of the article to be purchased. This method is used widely by governmental agencies and by large industrial organizations. The use of this technic for some college purchases can produce appreciable monetary savings. The general intent of this article is to provide an abbreviated review of the application of this method to college buying.

The specification technic of complete product description requires a



more active exercise of the technical abilities of both the requisitioning agency and the purchasing agent. It has numerous advantages, particularly in the purchase of items that are procured in large quantities. Specification buying compels an analysis of the function or use of the material; provides a standard of quality measurement of the materials delivered; allows a wide nonrestrictive competitive field, and also makes provision for various nontechnical requirements, such as method of packing and sampling for inspection.

One must remember that specification buying in the hands of inexperienced personnel can be used to the disadvantage of the college in question.

SPECIFICATION SOURCES

The well oriented college purchasing agent makes use of all three of the aforementioned methods for measuring quality. The technics of specification buying have been highly developed by both government and industrial purchasers. The results of this development are available to the college buyer for adaptation to his buying problem.

There are a number of organizations whose chief function is the formulation of specifications. The publications of these organizations are usually available to the college buyer either gratis or for a small charge. Included in this group are the Federal Specification Bureau, American Society for Testing Materials (A.S.T.M.), American Standards Association (A.S.A.), Society Automobile Engineers (S.A.E.), and others. Municipal and industrial procurement agencies will usually provide individual copies of their specifications upon request.

The purchasing agent in most instances is guided by the using department on the question of quality definition. In most situations the specification previously discussed should be furnished by the requisitioning department. In the case of a college this would be the educational department head, the registrar, or the superintendent of buildings and grounds.

One of the important functions of the college purchasing agent is insistence on a complete specification. He should be equipped to understand the

specification description under discussion. In some instances the college buyer's technical ability and knowledge of the market might prompt him to make changes in the specification. This should be done only after consultation with the requisitioning agency.

The application of the specification technic is best demonstrated by a series of simple examples indicated and discussed here.

Mimeograph Paper: A request comes through for "1000 reams of 20 pound white 8¼ by 14 mimeograph paper."

Investigation of the use as the first step in specification preparation might indicate that the one sided use of this paper would allow 16 pound instead of 20 pound. It might also bring out the possibility of using the more economical 8½ by 11 size instead of 8¼ by 14. The next step would be the development of a more detailed description of the type of paper required by the department. The description as given is incomplete and would produce poor results.

A proper description might be:

"Mimeograph bond paper, white, 8½ by 11, 20 pound basis weight. (500 sheets 17 by 22.) No. 2 100 per cent sulphite bond water marked with a mill brand. Packed in ream bundles with 40 pound kraft and labeled to designate type of paper, basis weight, and manufacturer."

FORMAT STANDARDIZED

Most of the larger users of specifications have adopted a standardized captional format. This varies with the type of industry. One large municipality uses a standardized outline which includes:

1. Specification number keyed to indicate class of materials and specification date.
2. Title.
3. Intent.
4. Kind, including physical and chemical requirements.
5. Packing.
6. Sampling and inspection.
7. Ordering instruction to using agencies.

The average college spends a considerable amount of money on printed material distributed to students and to the public. Catalogs form a sizable group in this area. In our larger institutions this single item may represent an annual expenditure of $20,000.

The following serves as an example of the process known as "tightening the specification." The degree of acceptance accorded to these specification suggestions is dependent upon the evaluation of the economies involved by the individual college. The accepted features would be included in a complete catalog specification.

SUGGESTIONS FOR CATALOGS

1. Move folio (page number) to the top of page in line with the heading.
2. Make top, bottom and outside margins on each page ½ inch.
3. Condense staff listings to a single printed line which could include

name, degrees (without colleges), title and department.

4. Edit course descriptions with a view to reducing number of words to a minimum compatible with educational meaning. Any small reductions in number of words may add up to a material saving. Course descriptions frequently make up more than 50 per cent of the college catalogs.
5. Combine all catalog purchases into a single college contract, thereby taking advantage of bulk purchase economy.
6. Use single line titles throughout the catalogs wherever possible.
7. Evening session catalogs usually contain full descriptions of day session and other courses not offered in the current evening session term. Consider listing these courses without a course description.
8. Exercise a tight control on the issuance of catalogs having in mind the unit cost of from 15 to 50 cents. In situations in which a liberal issuance is considered part of the publicity program, consideration should be given to the issuance of course listings as a partial substitute for catalog requirements.
9. Use self cover for catalogs up to seventy-five pages.
10. Put titles for course descriptions and other paragraph groups in boldface starting on the same line as the body material. This makes possible elimination of a part of the title spacing.
11. Use white paper.
12. When it is possible to reprint a complete page without change, make a note to that effect in the specifications.
13. Use self mailing type of catalog with printed mailing frank on all or part of catalogs containing a small number of pages (up to 50).
14. Use 6 by 9 inches as the standard page size.
15. Use flush cut covers to conform with the 6 by 9 inch page.

Forms as a group, including both mimeographed and printed material, represent a sizable direct expenditure for all educational institutions. Associated with this is the indirect labor expenditure involved in the actual preparation of these forms. This is particularly evident in the various business offices of our colleges. Application of the specification technic, which includes analysis and complete description, always brings rich rewards in this commodity group.

The following development serves as an illustration of the general specification recommendation for printed and mimeographed forms.

Check List for Forms

SIZE

Use minimum standard sizes that conform wherever possible to those listed here:

Forms Printed on Bond or Ledger: Paper stock of 16, 20, 24, 28, 32, 36 pound, including 9 pound onionskin. The sizes are grouped in three classes. Preference should be given to class 1, which cuts from a 17 by 22 inch stock sheet.

Class 1: 4¼ by 5½, 5½ by 8½, 8½ by 11, 11 by 17, and 17 by 22 inches.

Class 2: 6 by 9½, 8½ by 8, 9½ by 12, 12 by 19, 19 by 24 inches.

Class 3: 8½ by 7, 8½ by 14, 14 by 17, and 17 by 28 inches.

Letterheads: Paper stock of 16, 20, 24 pound, including 9 pound onionskin. Standard sizes: 8½ by 11, 8½ by 7, 8½ by 5½ inches.

Government Post Cards: Sizes, 3¼ by 5½, 6½ by 5½ inches.

Printed Cards: Paper stock of 58½, 72, 91, 111 and 143 pound. Sizes: 2½ by 4, 3 by 5, 4 by 6, 5 by 8, 4 by 9½, 4 by 11, 6 by 9½, 8 by 10, 10¼

by 12¼, 8½ by 14, 12¼ by 20½ inches.

Mimeographed Forms: Paper stock 16 and 20 pound. 4¼ by 5½, 5½ by 8½, and 8½ by 11 inches. Use of the larger legal sizes should be discouraged unless they are absolutely essential.

COLOR

Colored stocks are costlier and should be used only when the difference in color is necessary for a distinguishing operation. In those cases, white can be used as one of the colors.

RULINGS

Printed rulings, rather than pen rulings, are suggested. The latter are usually more expensive. Use colored rulings only if absolutely necessary.

PAPER STOCK WEIGHTS

In general, the lightest weight paper that will perform the job is recommended.

Bond forms printed on one side, 8 by 11 inches and smaller, 16 pound.

Bond forms printed on two sides, 8½ by 11 inches and smaller, 20 pound.

Bond forms over 8½ by 11 inches printed on 20 and 24 pound.

Ledgers, when necessary, can be obtained from 24 to 36 pound.

Card forms 2½ by 4 inches and under, 58 pound index.

Card forms 2½ by 4 inches up to and including 4 by 6 inches, 72 pound index.

If more than 4 by 6 inches use the lowest weight possible, depending upon use, 72, 91, 111 or 143 pound.

GRADE OF PAPER

One hundred per cent sulphite No. 2 is recommended for all bond forms except in rare cases in which handling and very long life requirements necessitate rag stock. In such cases a 25 per cent rag stock will usually serve the purpose. A 50 and 100 per cent rag is available but is considerably more expensive.

CARD STOCK

One hundred per cent sulphite grade 2 or 3 is recommended except in those cases in which the rag content is absolutely necessary for handling purposes.

LETTERHEADS

Use 100 per cent sulphite 20 pound No. 2 with certain exceptions. In the president's and deans' offices, 25, 75 or 100 per cent rag can be used.

ENVELOPES

A 28 pound white wove is usually satisfactory for most correspondence uses.

WINDOW ENVELOPES

Design mailing forms, both printed and mimeographed, such as letters or leaflets, for window envelopes whenever possible. This usually entails including guide lines on the form proper for address placement.

FORM DESIGNATION

All forms should have a form designation printed in the lower left-hand corner. This should include form number, quantity printed, date printed (month and year), and name of form. (This actual printing may be left off letter heads and envelopes.) The form designation may be assigned to these categories for record purposes.

COMPLETE INFORMATION

Form requests should have complete data, such as name of form and form number, number of forms to be ordered, quantity used annually, grade of paper, weight of paper (basis), overall size, color of paper, color of ink, color of ruling, perforations, numbering (color, style, serial, starting number), punching, binding (loose, pads and number to pad, book, and number of sets to book), if printed two sides, tumble or book, number of copies of proof and date of submission, delivery date, banding. Under remarks, include additional information, such as composition, plates, folding, gathering, stitching, cornering, carbon and packaging.

GENERAL

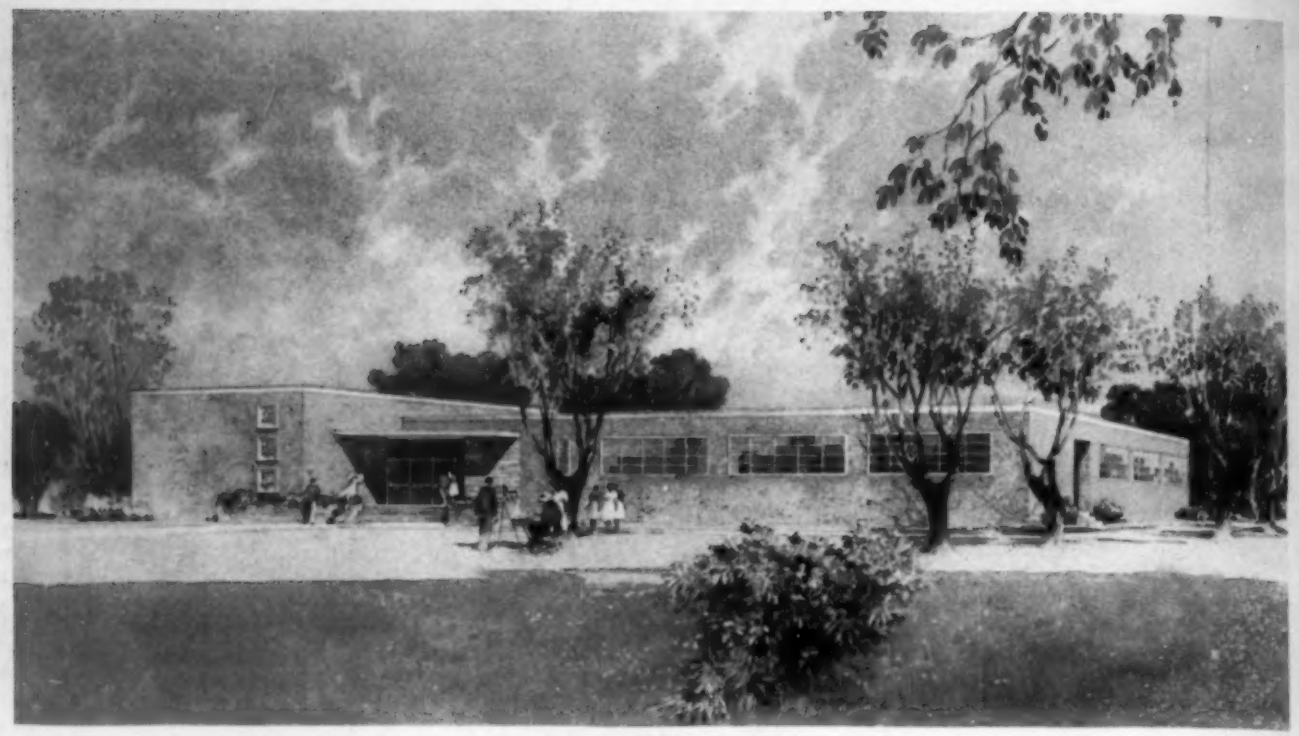
1. See that the college name appears on all forms.
2. Substitute post cards for letters whenever possible.
3. Consider offset printing from original copy when form is used in small quantities.
4. Print on one side only, except when two sides are essential.
5. Substitute mimeographing for printing when the form is not permanent or when use is low.

All of the illustrations used pertained to paper and printing. This commodity class was used because of its universal use by all educational institutions. The same theory of complete technical description based on scientific analysis can be applied to other commodity groupings, such as oil, coal, maintenance materials, laboratory supplies, paint, steel and furniture.

Any specification, regardless of class, should be easily understood both by purchasing personnel and by the vendors involved. It must be complete and nonrestrictive in order to attain a wide and safe competitive field. It should specify subsidiary purchasing information, such as packing, testing and sampling. It should adhere to practical recognized manufacturing standards.

Student Loans . . .

will become increasingly important in the future as veterans exhaust their present educational entitlements available to them under the G.I. bill. In the January issue E. E. McQuillen of Texas A. & M. College will describe the successful technics for administration of student loan funds in that Lone Star institution.



Planned for fine arts, yet readily adaptable to general university purposes.

Facilities FOR A FINE ARTS PROGRAM

WILLIAM E. LINCH
Sims, Cornelius & Schooley
Architects and Engineers
Columbus, Ohio

GREENWICH VILLAGE ATTICS AND renovated carriage sheds will have little lure for the embryo artists of this generation if physical environment as provided in buildings such as the proposed new Fine Arts Building at Bowling Green State University sets the standard by which they measure their requirements.

Planned for convenience, economy and a stimulating atmosphere for creative study and instruction, this one-story modern structure, to cost approximately $200,000, will provide students with facilities specifically developed for instruction in the fine arts, yet sufficiently flexible to be readily adapted to general university purposes.

The simplicity of the functionally modern exterior design expresses the progressive philosophy of this Ohio university's administration in general and, in particular, that of the fine arts department's staff.

The aluminum windows, cornice trim, and main entrance are direct contributions to this contemporary air and, at the same time, are especially functional and economical in maintenance. The texture of the rubble stonework at the entrance, combined with the warm tones of the salmon colored brick, provides a focal point to the one important axis defined by a supplementary approach to the campus.

To encourage a direct contribution by the students in the basic construction of the building and to build some of their personality into it, cut stone "shadow box" panels to the left of the entrance have been provided. These permit the temporary, or permanent, display of colorful ceramics created in the school itself. The asymetrically recessed east entrance serves the same purpose in providing a definite spot and a plain background for sculpture developed in the department.

Planting areas contained within low rubble stone walls tie the geometric masses of building to the surrounding landscape.

Entering the lobby, a noticeably natural and easy transition from the exterior is provided by the generous glass separation screen and the continuance of the exterior brick wall into the interior. The slate paving of this lobby area likewise is a pleasing

aid in avoiding the usual abrupt transition from the exterior to the interior.

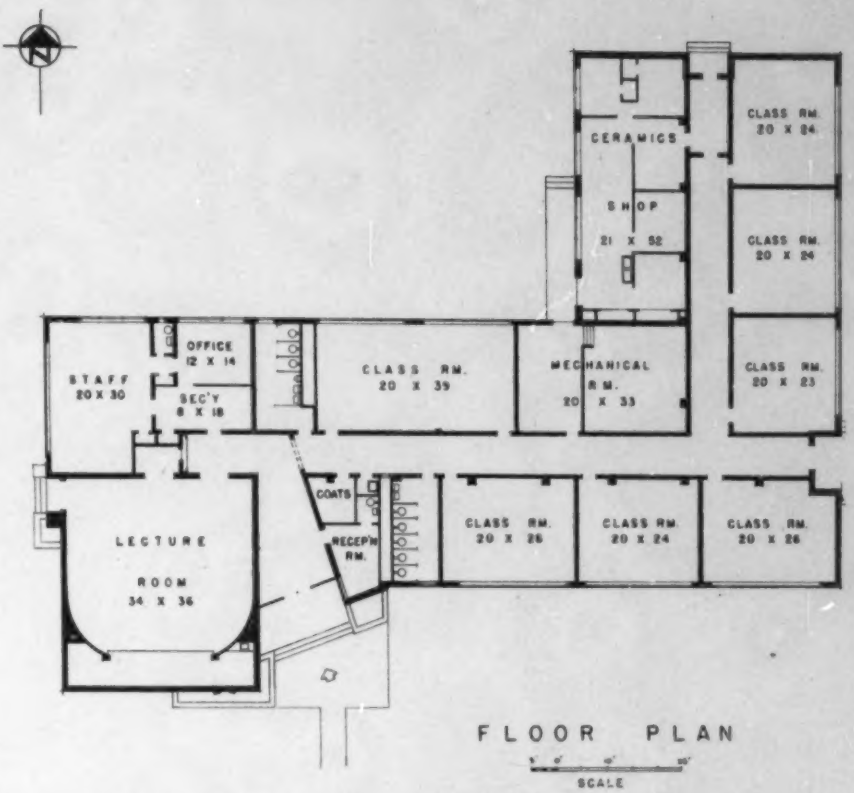
Paintings will find an ideal display space on the broad plain surface of the brick lobby wall, where they will be accented by adjustable pin-point spot lights from the ceiling.

Adjacent to the lobby, near the main entrance, a reception room will serve the dual purpose of a place to receive guests and a rest area for the teaching staff. At the end of the lobby the circulation distributes directly and naturally to the departmental offices, the main lecture room, and classroom area.

The office group is composed of an outer office, a private office for the chairman of the department, and a staff room to serve as office space for the teaching staff. The chairman's office is entered through a colorful door set in a functionally decorative partition of corrugated glass from floor to ceiling.

Across the corridor from the offices a lecture room is provided for the assembly of large groups, projection of pictures, and exhibition of works of art. The walls are lined with plain bands of blond oak paneling, providing an air of refinement and a practical background for display purposes.

The classroom area is an orderly grouping of large rooms planned with nonbearing or movable partitions that afford sufficient flexibility to serve many types of instruction in fine arts and in general courses.



From a colorful lobby, the circulation distributes directly and naturally to departmental offices, the main lecture room, and the classroom area.

Off to itself, because of the dust and noise common to an activity of this nature, the ceramic shop is reached at the end of the corridor through a foyer of its own. Dwarf partitions separate the various functions of this shop, complete with damp and dry closets, plaster and spray rooms, glaze pantry, kiln room, and clay storage.

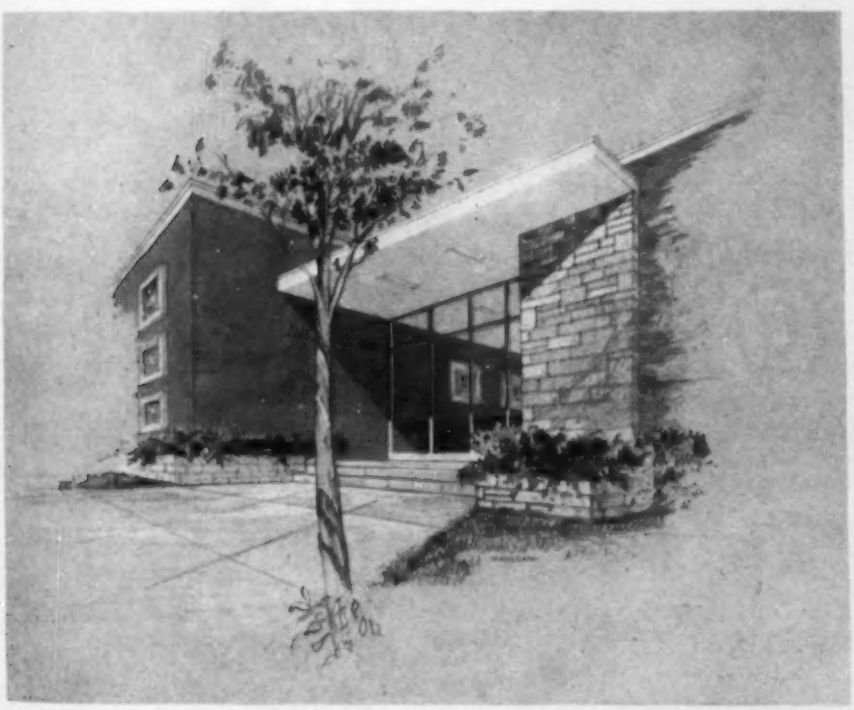
The shop is serviced from the outside through large doors and a loading dock, which also serves the janitor's work space and the mechanical room.

Lining the corridors on both sides are low deep equipment lockers, the tops of which provide a work shelf in the adjacent classrooms.

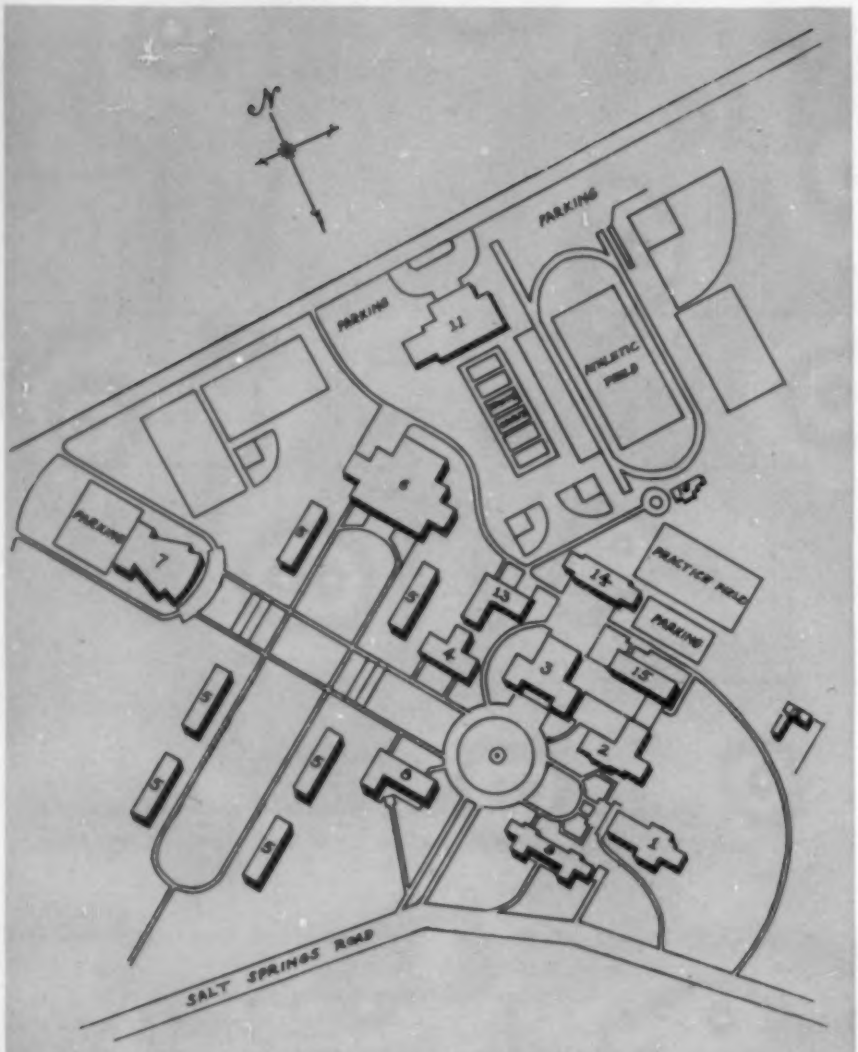
Superfluous finish and embellishment in the classroom areas are conspicuously absent. The walls are cinder concrete block painted with a casein paint to introduce some color and at the same time to preserve their acoustical value. Floors are mastic tile and ceilings sound-treated to provide quiet work areas.

Essential toilet facilities for both staff and students, a conditioned forced air heating system serviced from a central power plant, and a scientifically studied lighting system with both general and spot lighting complete the physical enclosure of this building.

The architects have attempted to create "facilities," not a monument, and to overcome that prevalent conception that there must be conflict between esthetic considerations and practical results in operation.



Shadow box panels to the left of the entrance permit temporary or permanent display of colorful ceramics created in the school itself.



MASTER PLAN

Le MOYNE ENJOYS RARE PRIVILEGE OF STARTING FROM SCRATCH. ON AN IDEALLY LOCATED SITE IT WILL ERECT 16 BUILDINGS; TWO ARE UP NOW

The Rev. WILLIAM J. SCHLAERTH, S.J.
President, Le Moyne College
Syracuse, N.Y.

LEGEND

1. Chapel
2. Future Library
3. Administration, Recitation and Library
4. Science Building
5. Dormitories
6. Dining Hall
7. Auditorium
8. Student Union
9. Faculty House
10. Seismological Laboratory
11. Gymnasium
12. Power House
13. Future Academic Building
14. Future Academic Building
15. Future Academic Building
16. Field House

CREATION OF A MASTER PLAN FOR a new college is perhaps a kind of dream that fascinates anyone connected with college planning or architecture. It is not often that a new college comes into being. Infrequently, also, can anyone actually begin to plan from the very start, namely, the acquisition of a beautiful and ideally located site.

However, that is precisely what happened at Le Moyne College. Two buildings were recently constructed on a tract of 117 acres on the outskirts of Syracuse, N.Y., the first of a group of sixteen buildings that constitute a master plan for the new college.

Based upon an enrollment estimate of between 800 and 900 students during the first several years, the master plan envisages a total registration of 3000.

Relying upon the best information that was available and making allowance for what is deemed conservative variations, the plan anticipates growth of the college to its probable maximum, perhaps within the life span of its planners.

Certain fundamentals entered into adoption of the plan. Perhaps the first of these, if not the most important, is that a master plan is not

an immutable formula to which all posterity must unwillingly yield and render unreasonable conformity. On the contrary, a comprehensive master plan must have tolerance for modifications and adaptations made necessary by unpredictable growth in enrollment, as well as in the number of courses by which the college may be asked in the future to serve the community.

While we cannot, perhaps, plan for the unforeseen future, we can always be conscious of the vagaries of circumstance. We need look no farther than any established campus to understand the meaning of overall planning. Nothing serves better to highlight the importance of establishing a master plan than the predicament in which many institutions today find themselves because, many years earlier, little thought was given to the future.

EXPANSION DIFFICULT

We find, in such cases, inadequate space with expansion difficult or costly. Sometimes an old and perhaps still valuable building is so badly located that undesirable sites for all other buildings in the vicinity must be tolerated ever afterward. Or, perhaps, a new building must be located so far from its related buildings that students lose time going to or coming from classes.

The Le Moyne plan seeks an orderly and efficient arrangement of buildings in the best possible relation to the topography. Beginning with a recognition of immediate needs, the plan proceeds to provide for them in proper relation to the buildings that will be required by the growth and full development of the entire unit. Orderly sequence in the construction of buildings is assured by a careful study of the most likely rate and terminus of growth. Of course, at all times the academic aims of the institution must guide the planners.

The site chosen for Le Moyne College consists of gently rolling land with a magnificent view from its upper level. The acreage is ample. It not only provides for a college of substantial size but makes generous allowance for playing fields, lawns, campus and parking areas.

The main campus and its flanking buildings are placed on a ridge that runs through the center of the property, the land sloping away from that point to the public thoroughfares to the north and south. The chapel is located at the head of the axis and on the highest elevation of the property.

The principal buildings and those first to be constructed are located so that they will be easily accessible to the nearest public highway. This saves road construction and maintenance. A secondary axis was fixed on lower and somewhat more nearly level ground, around which the residence hall group was planned.

The master plan layout shows the auditorium site near the highway for ready access by the public. The gymnasium and athletic fields were allocated the lowest and most nearly level ground for obvious reasons.

Despite the imponderables, the roads needed from the beginning could be laid out with full regard for present necessities and future conveniences. Some grading was unavoidable, so it was decided to do it at the most propitious time, namely, before the buildings were begun.

We considered the recitation hall, or administration building, to be obviously the first necessity. It and the science hall were constructed first, to be followed by the faculty-student residence.

These three buildings must provide from the beginning such basic facilities as a cafeteria, auditorium, library, chapel and other needs. All will ultimately be housed in other buildings. As additional buildings are erected, the present space will furnish a larger number of classrooms.

KEY BUILDINGS

These, then, are the key buildings. Their location was designed in relation to all the reasonable probabilities. Basic considerations, such as initial ready access, availability in terms of future buildings, and elasticity of design, entered into our first choices.

It was also necessary, in planning use of this space, to project our vision into the future, making due allowance for immediate and present needs. We think that the elements of good classroom planning have been kept in mind, even in the spacing of columns and beams, so that adjustment in the future will truly be in the spirit of master planning.

Bearing in mind the present serious problems of cost, the question of design was no small problem. The choice in design must steer between warmth and charm, avoiding stark, institutional looking buildings, and the quite realistic problem of cost. In view of this, we have not drawn upon any historic style. To do so might also hamper future designers. We have aimed for an agreeable academic atmosphere without resorting to superficial decorative detail to achieve it. In short, the design is calculated to provide elasticity for the future.

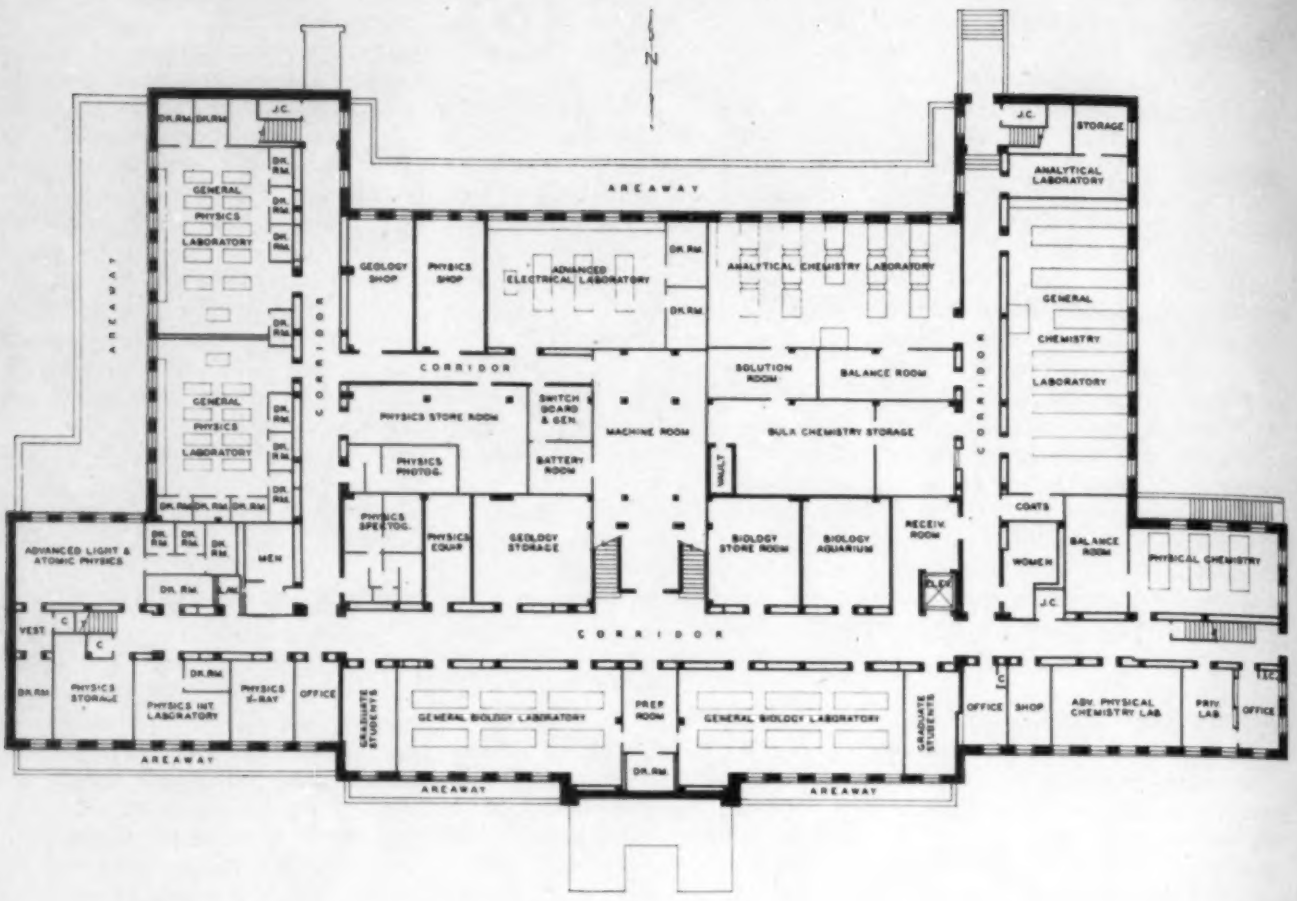
The roofs of the first buildings were kept flat, with as few parapets as possible. This seems to give the buildings a characteristic horizontal appearance, broken only by the dominating central bell tower. The brickwork is of a warm brown-red color, suitable for masonry in a northern climate.

FOR PRESENT AND FUTURE

At each juncture, our building plans are geared to the present and future curriculums. Change of emphasis on courses may well affect placement and use of facilities. While this problem does not always directly affect design of a building or a part of it, we found, in shaping a master plan, that we had to be aware of it at all times. Perhaps a specific development in the course of our planning may illustrate this.

Jesuit colleges place strong emphasis on the cultural subjects, such as the classical languages, history, religion and philosophy. The sciences are not neglected, as evidenced by the decision to erect the science hall simultaneously with the recitation hall. Yet Le Moyne is perhaps the first Catholic college in this country to offer a full four-year course leading to a degree of bachelor of science with a major sequence in industrial relations. Thus, it seems to us fundamental that master planning demands imagination not only on the side of pure physical design but with an eye toward probable future use. We believe that the Le Moyne plan meets this requirement.

As you view the master plan presented here, you can apply your own judgment. Its values are manifold. Not the least of the values, however, is that it permits wise location of facilities in the first instance and a visualization of the whole, at the same time. Adjustments in the future can be made only in the light of prudent decisions at the outset. Upon principles such as these have we endeavored to rear the Le Moyne plan.



GROUND FLOOR PLAN

SCALE 0 2 4 8 16 24

This Science Building Is *Air Conditioned*

MARK LEMMON

Architect, Dallas, Tex.

THE UNUSUAL FEATURE OF THE new Fondren Science Building at Southern Methodist University, Dallas, Tex., is the air conditioning system, which will cool the entire structure during the hot months.

It is not an easy matter to design an air conditioning system for such a complex building, housing, as it does, the chemistry, physics, biology, geology and geography departments, which are subdivided into laboratories, offices, lecture halls, and miscellaneous spaces.

The air conditioning load fluctuates because of the changing position of the sun with respect to the building surfaces and because of the shifting population within the building with the attendant turning on and off of lights and of heat generating appliances, such as gas burners, ovens and steam baths.

In addition, there is need for supplying air to compensate for that exhausted through fume hoods and the normal exhaust system in such a structure. As a consequence, the air conditioning system must be completely flexible and relatively large quantities of outside air must be introduced.

A central heating plant will bring to the building via tunnels all the necessary services, including the cold water for summer air conditioning. In a central refrigeration system water will be cooled to approximately 35° F. by means of centrifugal compressors located in the power house and will be pumped through insulated pipes to this and other air conditioned buildings on the campus.

Within each building so served, the water from the central plant will be mixed with return water to raise

the temperature and to provide additional gallonage and will be circulated within that building by means of a supplementary pump. The returns from the building will then be carried back to the power plant through other insulated lines.

TUNNEL SYSTEMS

All of the circulating water piping between the power plant and the various buildings is run in the tunnel systems on the campus. These tunnels also carry steam and return lines and electrical lines. The central plant scheme provides the maximum flexibility and the maximum maintenance with the smallest number of skilled attendants and at the same time eliminates the necessity for providing compressors, cooling towers, and such equipment in each building.

Within the new science building, now under construction, there are numerous air conditioning units of various types. Basically, the system is designed so that the exterior wall losses are overcome by the use of window units supplied with primary air through a conduit type of installation and with hot or cold water, according to season, circulated through coils in each unit. These coils serve to heat or to cool secondary air recirculated from the room and mixed in the unit with the high velocity primary air.

The primary air, which is distributed through ducts of the conduit type, is cooled in the summer through a single dehumidifier that serves the entire building and is warmed in the winter by being passed over steam coils at the dehumidifier. From the dehumidifier, air is forced at high velocity through a system of horizontal conduits located below the ground floor and then through vertical risers to the air units, which are recessed under the windows in the various spaces on the ground, first, second and third floors.

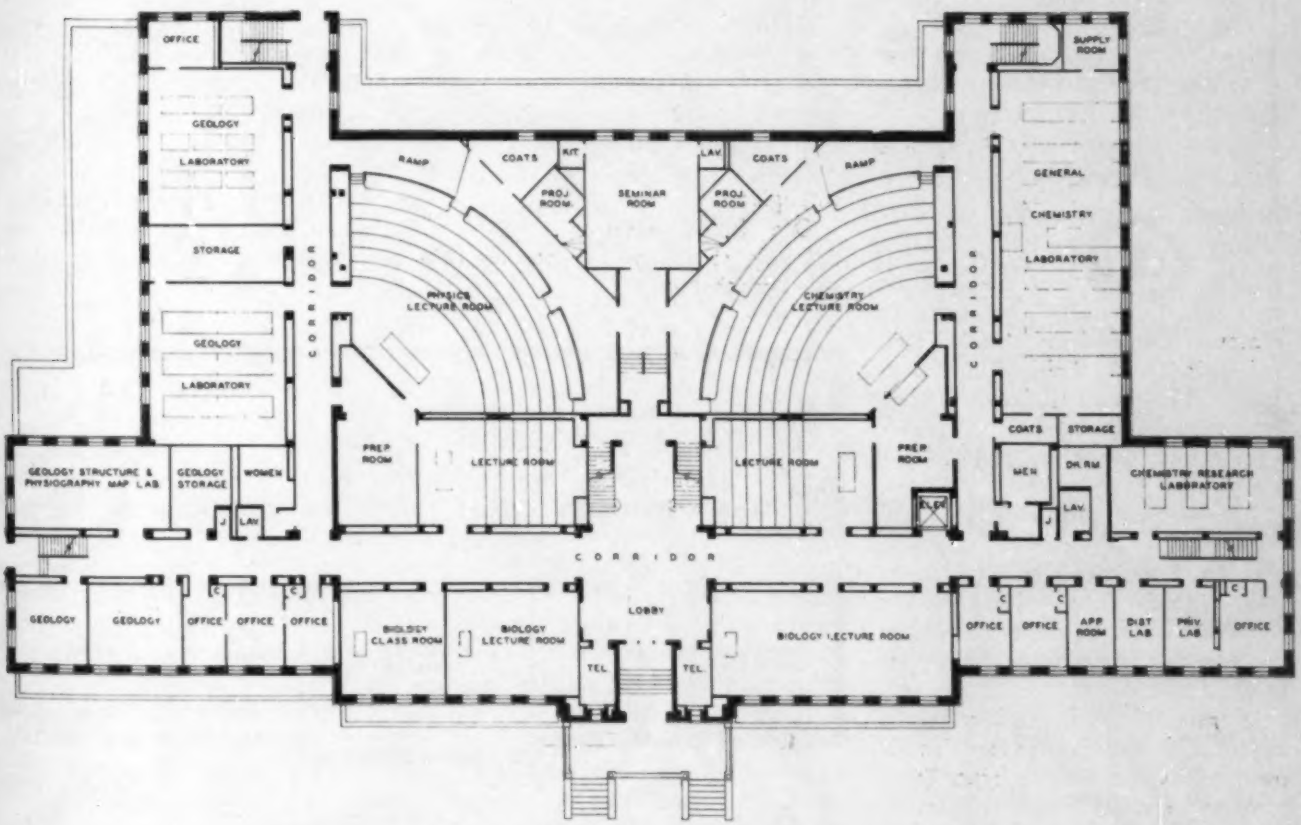
The water circuits serving the coils in the window units are systems that circulate both water that has been used in the summer to cool the primary air in the dehumidifier and water that has been pumped through steam to water heat exchangers to add heat in the winter.

This basic system is supplemented by nineteen other air conditioning units ranging in size from a unit that handles 600 c.f.m. up to one that handles 7640 c.f.m. These supplementary units serve independently four lecture rooms, three interior zones, two exterior zones in the central part of the building (which would not be reached by the conduit system), and eight laboratories.

AUTOMATIC CONTROLS

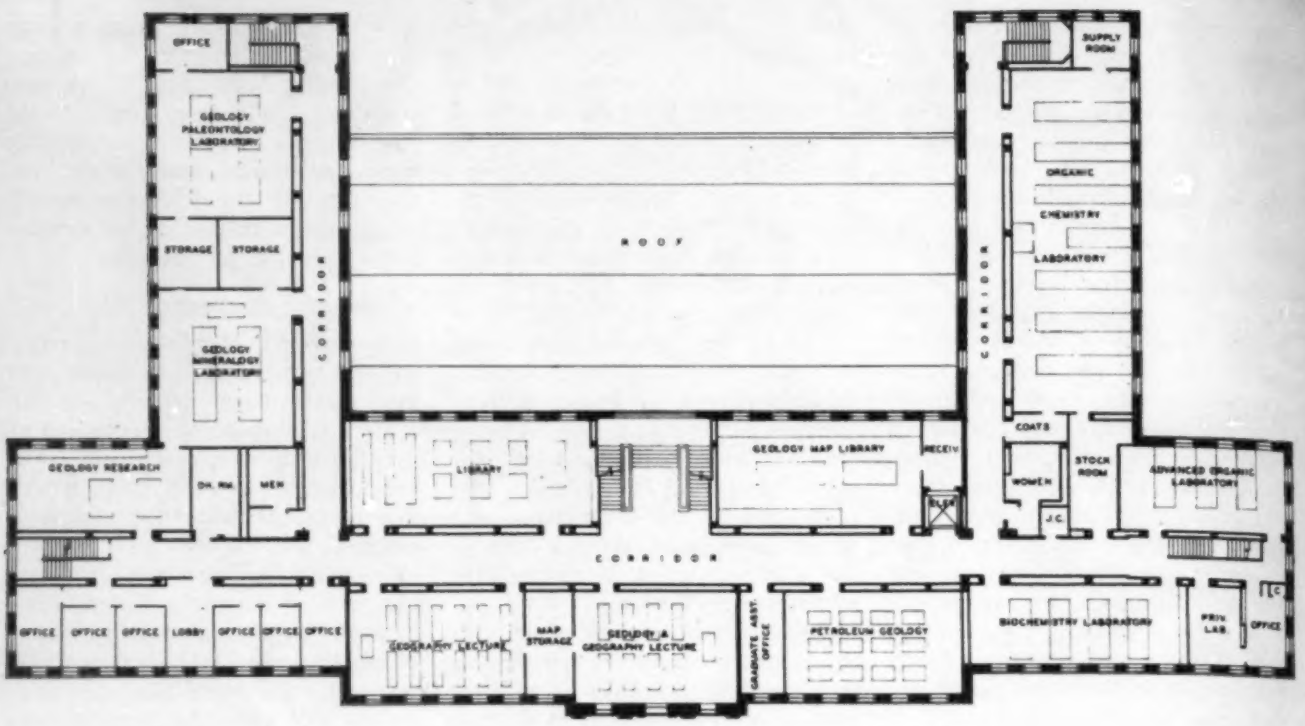
Controls are completely automatic and are so arranged that in the summer the window units handle the loads in the spaces they serve up to the limits of their capability, after which the supplementary systems take over to provide additional cooling as required.

In the winter the window units take care of the entire heating load. The air supplied through the supplementary systems is tempered air to provide for ventilation only, save for the two units that serve the exterior zones in the central part of the building; these units necessarily have to function to compensate for the heat loss through the building surfaces in those areas. This control installation regulates the temperature



FIRST FLOOR PLAN

SCALE 0 5 10 15 20 25



SECOND FLOOR PLAN

SCALE 0 5 10 15 20 25

in each space to maintain a predetermined level with independent settings for summer and winter.

Owing to the many variables involved, it is impossible accurately to determine the maximum refrigeration effect that will be required. It has been estimated that the building will need a maximum of 350 tons.

GEORGIAN ARCHITECTURE

Architecturally, the new science building conforms with the Georgian style of the original buildings on campus. The exterior is faced with red brick with Bedford limestone trim. The structural frame is concrete; a steel roof frame is covered with gypsum plank on which is laid a slate roof.

Interior partitions are of clay tile and a number of areas are faced with glazed tile. Stairways are of concrete with terrazzo finish. Windows and room doors provide the only wood in the building, as the door frames are of steel.

In general, the room flooring is asphalt tile with that in the laboratories of the acid resistant type. Toilet room and corridor floors are terrazzo.

Corridor walls are faced with structural glazed tile to the height of the doors, with plaster above. In the chemistry laboratories the walls are faced with mat glazed structural tile. All walls, tile or plaster, are light in color.

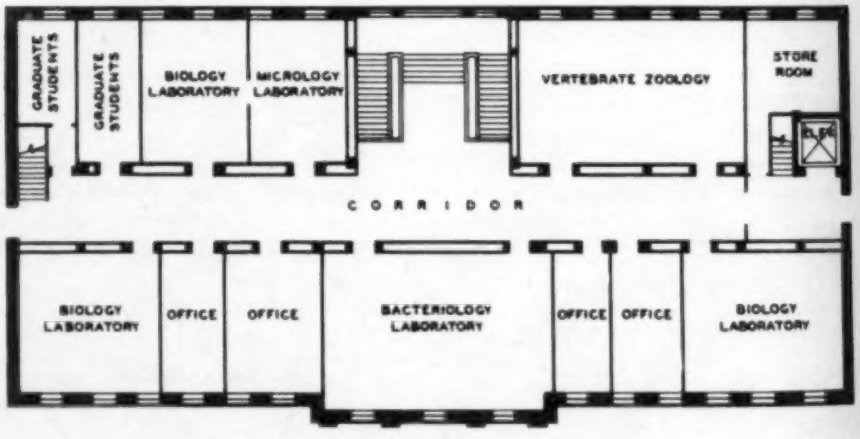
Ceilings generally are of plaster with acoustical treatment. Laboratory ceilings are of exposed concrete, the concrete having been poured on form liners to give a smooth finish.

Fluorescent lighting is used throughout.

One freight elevator serves the building, especially that portion devoted to chemistry.

The total contract price for the new building was $1,690,020, which is broken down as follows: general work, $1,096,370; plumbing, heating and air conditioning, $463,000; electrical work, $130,650. The cubage is 1,350,000 feet, making a cost of $1.25 per cubic foot, excluding architectural fees, land and equipment.

The equipment contract is on a cost-plus basis. The university expects to equip the structure completely for $450,000.



THIRD FLOOR PLAN

SCALE 0 5 10 15 20 25

TRUSTS SELDOM FAIL

M. M. CHAMBERS
American Council on Education

ALMOST EVERY CHARITABLE BEQUEST creates a possibility of litigation, for nearly every decedent has heirs-at-law (collateral if not direct) who stand to benefit if the intended gift for a charitable purpose is declared invalid or illegal.

Many states have well known statutes that, under specified circumstances, render such bequests illegal. For example, New York stipulates that no more than half of the estate may go to charity if the decedent has a surviving wife or child.

Then, of course, the terms of the gift must place it within the definition of charitable trusts—its benefits must inure to an indefinite number or class of persons and not to any named person and his successors forever. No charitable trust is created if the gift is to a proprietary institution or if its terms plainly admit the possibility of its being used for private gain.

MUST BENEFIT PUBLIC

Another test is the test of public benefit. An intended charitable trust will not be permitted to endure in a form and manner demonstrated to be of no value to the community or of no benefit whatever to humanity. In such cases the courts are confronted with two alternatives: (1) conceivably the intended trust can be declared to have failed with the gift reverting to the estate for distribution to the heirs or for such other disposition as the testator may have lawfully directed, or (2) the trust can be declared valid and subsisting by virtue of the donor's general charitable intent, but in need of "reformation" by application of the judicial doctrine of *cy pres,* under which the court, upon finding that the precise terms of the trust actually make its execution illegal or impossible or impracticable or devoid of public benefit, may modify the terms in such manner as to preserve the trust and effectuate the donor's wish to benefit humanity by some plan as nearly as possible identical with the plan he described in the trust instrument.

A recent case in New Jersey chancery illustrates this matter well. A testator possessed eight volumes of loose-leaf typed notes entitled "Random Scientific Notes Seeking the Essentials in Place and Space," written by himself. He directed his executors to expend $15,000 to edit, type or print, and distribute 100 copies of this document, and he provided for a trust fund of $150,000 to be offered successively and alternatively to the National Academy of Sciences at Washington, Princeton University, Harvard University, California Institute of Technology, and the American Philosophical Society at Philadelphia, on condition that the recipient raise within three years another $150,000, the income from both funds to be used "to continue and carry forward to completion and to publish for popular understanding" his researches as recorded in the "Random Notes." In case none of these first five offerees accepted the trust, then the $150,000 bequest was to be offered to the League of Nations at Geneva or, alternatively, to Princeton University, on any terms satisfactory to his executors.

Examination of the "Notes" by distinguished professors of philosophy and of science produced unanimous reports to the effect that the document was unsystematic and unscientific, largely incoherent and unintelligible, in part irrational, and meaningless and worthless as a contribution to knowledge or as a basis for further investigations. It appeared that the testator had been touched with megalomania and had entertained inflated notions regarding the importance of his thoughts and writings.

The National Academy of Sciences renounced any rights under the will. The League of Nations and its successor, the United Nations, rejected the gift. Princeton University declined to accept the trust under the first stated terms but argued that the fund should be given to its department of philosophy as an endowment for philosophical investigations and research. Heirs of the testator contended that the trust was not charitable, because the testator's ruling intent was merely to ensure the publication of his own writings and to perpetuate his own name and that, therefore, the trust should fail and the fund revert to the estate.

Faced with these facts and these contentions, the court examined the whole will and found numerous expressions indicating a wish to do something "for the benefit of all mankind" and for "world benefit," clearly classifiable as a general charitable intent. The testator had been mistaken in his choice of a specific means of effectuating that intent, but the case seemed to be a peculiarly apt one for the application of *cy pres.*

Accordingly, the court directed the executors that neither the $15,000 nor any other sum should be expended for reproducing the "Notes" and held that the intended gift of the $150,000 fund created a valid charitable trust that was impossible of execution according to its particular terms but should be preserved and executed by naming Princeton University as trustee, with the income of the fund to be used for philosophical researches by the Princeton department of philosophy.*

*Wilber *v.* Asbury Park National Bank and Trust Company et al., (N.J. Chancery), 59 A. 2d 570 (1948).

HOW TO BUY AND HOW TO SELL

PROBABLY THE MOST DIFFICULT problem the college dining room director has to face at this time is that of maintaining quality food at the right cost and being able to merchandise it to the student customer.

Our mission as college dining room directors is to serve the best quality of food and at as low a price as possible without incurring a deficit to the university. We are competing with all types of food establishments, some of which serve food at lower prices but do not conform to our standards of quality. Sometimes it is difficult to make a student understand why we are not underpricing "Sam's luncheonette" since Sam is in business for profit and we are not.

We must maintain the highest standards of quality because of our responsibility to the student and the community and because we, as college dining room directors, would not tolerate anything else.

In order to establish standards of quality that are within the price range of the student, we first must determine what that price range is. In most colleges and universities the families of the students represent a wide range of income, some students having a great deal of money to spend and others having barely enough to get by. We have made exhaustive studies to determine what the student can pay and have tried to make our prices and services conform to these requirements.

Quality standards can be maintained only by constant vigilance. There must be cost control in every phase of the operation. We divide our operation into the following categories: management; procurement of food; receiving of food; storage and warehousing of food; issuing from storage and warehouses of foods; menu making and food preparation; service and selling; housekeeping and personnel; office and accounting.

I am using our dining room service at Duke not because it is the best example of efficiency but because it happens to be the one with which I am most familiar. We are still in the process of building up this organization, but we have found that our cost control has been of tremendous value to us. We have in operation three cafeterias, one tray service dining room, a formal service dining room, and, in our Women's College, three dining rooms in which women students are served on a board basis.

From an address given before the National Restaurant Association convention, 1948, to college dining room directors.

DUKE UNIVERSITY _____ UNION DAILY REPORT No. _____

DAY _____ DATE _____

PARTICULARS	CASH	CASH COUPONS	STUDENT MEAL COUPONS	CREDIT SALES	TOTAL	MEALS SERVED NO.	MEALS SERVED AVERAGE
CAFETERIA A	$	$	$	$	$		$
B							
C							
OAK ROOM							
SNACK BAR							
TRAY SERVICE							
TRAINING TABLE							
BANQUETS							
WADE BOARD							
PROCESSED FOOD OUTSIDE							
W. C. DINING HALL							
W. C. FACULTY D. ROOM							
SOUTHGATE							
MISCELLANEOUS SERVICE							
TOTAL REVENUE	$	$	$	$	$		$

		JOURNAL ENTRIES	
		DEBIT	CREDIT
ACCOUNTS RECEIVABLE			
COUPON BOOKS SOLD			
COST OF FOOD			
STORE ROOM			
OVER AND SHORT CASH			
EXPENSE			
TOTALS			

EMPLOYEES' MEALS	NO.
SALARIED EMPLOYEES	
WAGE EMPLOYEES	
TOTAL	

PREPARED BY

APPROVED AUDITED

The dining room office supplies the accounting office with data each day. Such statements are used in preparing the complete report for the month.

MANAGEMENT

In order that management can operate efficiently, there must be an organization with clear-cut responsibilities from the top down. Each employe must understand what his job is, and each person in a supervisory or managerial capacity must have a statement showing his line as well as functional authority. Overlapping or duplication of duties and responsibilities is wasteful. We divide our management into four main divisions, consisting of manager, food production supervisor, selling service supervisor, and housekeeping and personnel supervisor.

PROCUREMENT OF FOOD

The U.S. Department of Agriculture has established complete specifications for food purchases, which are described in the Federal Stock Catalog. We use these as our basis of purchasing and notify all our purveyors to that effect.

At Duke all canned goods or indirect storeroom purchases are made by the purchasing agent. After the dining room manager submits a purchase request in detail, the purchas-

HIGH QUALITY FOODS

THEODORE W. MINAH
Director of Dining Halls
Duke University

ing agent requests bids from at least five distributors. This information, along with samples, is collected by the purchasing agent and is turned over to the dining halls' manager, who makes the final selection and designates the company from which the purchase is to be made.

Perishable items are purchased by the manager of each dining hall. At least five purveyors are asked for prices. The highest standards of quality are maintained, and there is a definite understanding with the dealers as to what we expect in the way of quality. Provision is made for the manager to buy directly from itinerant purveyors and to pay in cash for these purchases. We have made some excellent buys this way.

All receipts must be carefully weighed, counted and checked. Our purchasing standards are prominently displayed and referred to whenever there is any question.

STORAGE AND WAREHOUSING

Separate cold storage boxes are used for the various foods, and temperatures are checked constantly. Care must be taken that goods are stored so that the oldest stock is used first.

A central warehouse is used for carload or half-carload purchases, and large storerooms are maintained in each dining hall.

A perpetual inventory, maintained in the office, shows quantity as well as value of all merchandise. A rounded-off price is established when new deliveries are made.

ISSUING FROM STORAGE

Issues from storage and warehouse are made only from requisitions signed by authorized persons. These are coded from 1 to 20, designating the class of foods: (1) meat; (2) poultry; (3) seafood; (4) fruit; (5) juices; (6) vegetables, and so forth up to (20), which is processed food sold outside.

A summary of these issues is made each day and recapped on a work sheet. Storeroom control is maintained on all goods, direct and indirect.

MENUS AND FOOD PREPARATION

The food production supervisor is charged with the responsibility of planning the meals so that they will maintain the highest standards of quality and be acceptable to the students, from the standpoint of price as well as desirability. She must be able to provide nutritious meals and, in general, follow the basic steps as pointed out by Joseph Nye, in his

DUKE UNIVERSITY

SUMMARY OF FOOD ISSUES

_____ UNION STORE ROOM DATE _____ 19____

(1) MEAT	(2) POULTRY	(3) SEA FOOD	(4) FRUIT	(5) JUICES	(6) VEGETABLES	(7) BUTTER, CHEESE, OLEO	(8) EGGS	(9) MILK AND CREAM	(10) ICE CREAM	(11) PASTRY AND FLOUR

(12) OILS AND SHORTENINGS	(13) TEA, COFFEE, COCOA	(14) JAMS, JELLIES, PRESERVES	(15) SUGAR, VINEGAR, SYRUPS	(16) CEREALS	(17) CONDIMENTS AND SPICES	(18) MISCELLANEOUS	(19) STORE ROOM FOOD SOLD OUTSIDE	(20) PROCESSED FOOD SOLD OUTSIDE	(21)	(22) TOTAL ISSUES

PREPARED BY

AUDITED

Issues from storage and warehouse are coded from 1 to 20, designating the class of foods. A summary of these issues is made each day and then is recapped on a work sheet.

article, "What's on the Menu Today?" published in the June 1947 edition of COLLEGE AND UNIVERSITY BUSINESS.

SERVICE AND SELLING

Here is the opportunity to merchandise the food. We must determine what the student wants, how much he can pay, and how we can adapt our setup to his wants. We have found that the students want the following methods of services:

1. A multiple choice menu. The students will not tolerate an attitude of "take it or leave it."

2. Most of them like to pay for the meals as they go. They resent paying for meals they miss.

3. They like a variety of food services varying from a glorified hamburger stand where they can get a snack to a formal dining room where they can bring their best girls.

4. There is the necessity for providing meals on a board basis in women's colleges.

Some colleges cannot provide all these services. We haven't as yet at Duke, but in the last two years we have installed three cafeterias, a tray service room, and a formal dining room. We are working out plans for a room in which we can serve sandwiches, salads and other light refreshments and can have an area for dancing.

In our cafeterias we follow the pattern of having three choices of entrées: (1) a roast, chop or more expensive choice of meat; (2) a made-up dish, such as stew or croquettes, and (3) generally a meat substitute or meat extender.

There is a choice of four vegetables, besides two varieties of potatoes. We have a choice of bread as well as rolls. Salads range from a small one that can be sold for 5 cents to a luncheon salad. We have six varieties of juice on the cold bar. Three varieties of sandwiches are prepared and wrapped before the meal. Desserts always include a cake, pie, pudding, cookies, fresh fruits, canned fruits, and ice cream. Beverages include milk, coffee, tea and cocoa. The average student check is 34 cents for breakfast, 56 cents for lunch, and 64 cents for dinner. A snack bar is open at breakfast in one of the cafeterias where we serve only juices, sweet rolls, toast, coffee and milk.

The students go through the cafeteria line at the rate of seven a minute, but in the snack bar they have been averaging eighteen a minute.

Our tray service room is used only at noon and at night. Here we take the No. 1 meat on the cafeteria menu, add a potato, a vegetable, rolls and butter, a dessert, and beverage. This tray is made up in the kitchen directly behind the counter, and the student pays his 60 cents, picks up the tray and goes to his table. This service was designed to meet the needs of students in our professional schools who have a limited time for meals. The average speed of this service is about seventeen a minute, and the student saves from 10 to 15 cents a meal over cafeteria prices.

We have followed the pattern of successful commercial cafeterias in preparing foods in small quantities, serving all entrées in shallow pans instead of deep insets. All entrées are put in the pans in separate portions for good display and for control.

We have one room set aside for table service. Here the charge is about 10 cents a meal more for the service than in the cafeterias. This charge is written into the prices for the meals. There is both an à la carte and a table d'hôte menu. All items are the same as those served in the cafeterias and are cooked in the same kitchen. At night we add a steak dinner that is cooked to order.

We use doilies and paper napkins at noon and complete linen at night.

A great many faculty members are served in the Oak Room, where students and faculty mingle.

The cookie Christmas tree makes a nice holiday table decoration.

Our menus are priced so that a student can eat three meals a day for an average of $1.55. Actually, the average student check comes to just that.

We expect to use different merchandising methods in all our dining rooms from time to time as the demand requires. A 40 cent special at noon, the combination of the No. 2 item on the menu, a potato, a vegetable, rolls and butter, accounts for about 65 per cent of our cafeteria business. The student saves 10 cents a meal over the regular cafeteria prices. We have script books for sale at regular face value. These come in handy for those students who want their food bills sent to their homes.

HOUSEKEEPING AND PERSONNEL

All workers are interviewed, hired and sent to their jobs from this department. We have a training program for employes, the nucleus of which is our program for on-the-job trainees. A full-time institutional management graduate follows a curriculum set up for courses for cooks, bakers and managers. Each employe attends classes four hours a week and is rotated periodically on all jobs. This training has increased the efficiency of our help and has resulted in our decreasing our average cost per dollar of sale from 37 to 22.5 cents.

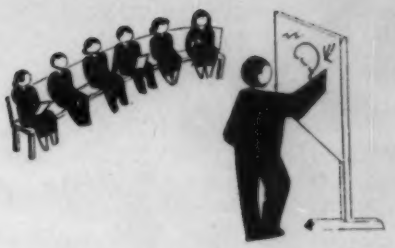
OFFICE AND ACCOUNTING

The dining room office supplies the accounting office with data each day so that at the end of the month we have a complete statement of operations which contains sixty-seven particulars and shows the statement for the month, the same month last year, this year to date, and last year to date. Expenses are divided into the cost of production, selling costs and general expense.

I am of the opinion that the use of a complete statement of operations and the proper interpretation thereof are of utmost importance in keeping costs in line and in anticipating the future changes in business.

College dining halls do a large share of the total food business in this country. A great deal more is expected of them than is expected of the commercial restaurants. They are maintaining the highest quality of food and service and are merchandising it to the student customers the way they want it, when they want it, and at a price they can pay.

SUPERVISION IS THE SECRET OF SUCCESSFUL FOOD SERVICE



JOHN BOYER

Office of Nonacademic Personnel
University of Illinois

FEW PERSONS NOT DIRECTLY CONcerned ever stop to think of the day to day planned and directed work required by employes of college and university food service units to turn out a continuing flow of food.

With the bulging campus populations of today, the job of preparing and serving food to large numbers has mounted sizably. Surely then, the responsibility of supervisors of kitchen employes for getting the job done effectively takes on added significance. Food service supervisors, by and large, will agree that the management and direction of these workers tax their greatest abilities and skills.

WHERE DIETITIANS ARE WEAK

For the supervisor who has just recently completed her professional training in dietetics and food service, this often is an especially difficult problem. She has every right to feel confident that she is somewhat of an authority on foods and their preparation. The only thing left is to get some other people to put her ideas to work. Sounds simple, doesn't it? But she knows all too well that unless she can do this effectively her knowledge of foods will not be applied to the preparation of meals and the results will be not as planned.

Faced with this realization, administrative heads of food services at the University of Illinois have teamed up with the office of nonacademic personnel to attempt a solution. We have roughly 200 food service employes—cooks, kitchen helpers, kitchen laborers, supply workers, and others—spread over the campus in seven food service units. Over these people we have twenty supervisors whose responsibility it is to direct all their work to the goal of providing good, clean, well prepared food at the lowest possible cost.

With a view toward helping these "bosses" in their work of supervising, the office of nonacademic personnel has offered "supervisory development" meetings covering methods of getting their jobs done more easily, smoothly and effectively.

These meetings are held on a voluntary basis, none being forced in any way to attend. They are held on university working time for two hours, often once a week, although the last point is elastic depending upon work loads, deadlines and schedules.

The conference-discussion method is used in round table sessions of training, the lecture being resorted to only on subjects in which that method alone is effective, such as on the university employe relations policy, and even there the lecture is not used fully. Discussion is encouraged, usually being brought out by a question from the group. The average number of supervisors in a meeting has been seven. This seemed to be small enough to encourage a good "feeling of belonging" and a close mutuality of direct interest and a willingness to participate. At the same time, it has not been too small for effective interchange of ideas by all.

ALL UNITS REPRESENTED

Since the food service units are widely scattered over the campus with separate groups of supervisors in each, the debatable question has been faced as to whether to have supervisors from all units in one meeting together or whether to try to arrange meetings of a few from each unit in separate meetings. The obvious support for the latter method is a close contiguity of interest, problems and conditions. This idea seems to be gaining momentum in the supervisory training programs of several organizations, but as yet we have adhered fairly closely to the plan of having supervisors from several operating units in on the same meeting. We have felt that the advantage of the interchange of ideas, attitudes and conditions has served to enrich the value to the individual supervisor.

Now, what have been some of the things covered in these meetings in the past year?

At Illinois, the office of nonacademic personnel serves as a central employe recruiting agency that screens applicants for jobs and refers those considered qualified to the hiring departments for final consideration in the hiring process. The departments do the final selection and hiring (with our advice on pay rates to conform with overall university practice); the personnel office does the recruiting.

SELECTION INTERVIEWS

In connection with this employment program, many supervisors have indicated an interest in discussing some of the progressive fundamentals of a good selection interview. So, one of the training sessions was devoted to just this: (1) what factors we need to know before we try to hold an interview with an applicant to fill a job (a thorough job analysis); (2) what particular qualifications, attributes, aptitudes, skills and personality traits we are going to be looking for when we conduct the interview, and what some of the worthy technics are for doing this.

Another group of five sessions was held on employe relations, or, in its last analysis, human relations. With each member of the group participating and bringing in a personal illustration of such relations problems, the real face-to-face headaches of the supervisor-employe relationship are discussed and analyzed by the entire

group. Decision as to the most effective way of handling came out of this. The objective to be reached was constantly up for consideration.

We followed closely the Training Within Industry job relations course and found supervisors in general valued the chance for interchange of ideas on these matters and usage of a definite pattern in solving them.

Closely tied in was a meeting that we called employe improvement and development. In this, we tried to cover as far as possible the matter of the supervisor's responsibility for the use of effective methods of discipline in order to keep a good group morale. This tied in as closely as possible to university regulations and practices.

The supervisory development idea seems to have taken somewhat of a hold among our food service departments. At the beginning of the 1948 fall semester we held what was our first more or less intensive short course of training for supervisors in these departments (and the intention is to continue the sessions regularly throughout the year).

This course of ten sessions lasted for four and a half days with meetings held both in the mornings from 10 to 12 and in the afternoons from 2 to 4, just before the bulk of rank and file food service employes reported to work at the start of the new school year. The meetings were conducted along the same general lines as the others and were based on the same general objectives.

PERSONNEL POLICIES REVIEWED

We began the course with a fairly complete consideration of university policy and procedures on personnel and employe relations. Among other items, such common ones as the following were hit upon: university policy on collective bargaining; holidays; employe benefits (sick leave, extended disability leave, privileges to take university courses without having to pay tuition); leaves of absence from the job; university civil service system of employment; methods of employe recruitment; workmen's compensation; grievance procedure; prevailing rate of pay, and similar matters.

Discussion was strongly encouraged, and it brought to light many valuable ideas from the group, a few items on which there seemed to be a little misunderstanding, and a great many points on which all were very much "on the beam."

We then went into a guided discussion of just *what is management, its concepts and its principles.* The group hit upon such factors as unity of direction, the span of management's control, and effective delegation of this authority to others. Light touch was given here to the main areas of responsibility of a supervisor (such as organizing, planning, directing, coordinating, controlling). Steps in organizing and planning the job were pointed up and analyzed in the light of real food service duties.

TWO PHASES OF SUPERVISING

Stress was next centered upon the two phases of supervising: the one of *coordinating* and the other of *controlling*. Here the field of human behavior and employe relations was brought to the fore, and several large animated and colored charts were used to illustrate good points of supervision practice. During the entire short course we tried to make good use of these charts and also of sound films to illustrate and drive home discussion points made. Few of the films took more than fifteen minutes to show, and our experience indicates that it was time well spent.

It was next fairly well agreed that good employe morale stems basically from effective orientation and induction of the new employe on the job. We took one session to work out a guided consensus upon the fundamentals of such a program. A guide for adaptation in each department was put in the hands of each of the people attending to assist in putting such a procedure into effect.

Another important matter analyzed and discussed was the basic need for good job instruction as a means of turning out effective up to standard work. Hand-out sheets containing a few samples of actual food service operations and jobs broken down and analyzed for purposes of instruction were passed around. These analyses were selected to show the practicability of the thing, and to emphasize its importance to the success of job instruction.*

Demonstrations were put on that drove home the principles and methods of good instruction as outgrowths of background knowledge of the art of learning. Blank job analyses sheets were handed out for use in making good analyses for every job in the food service process with a view toward ultimate effective job instruction on each of the operations.

One other phase is the high accident rate of food service employes. Our records show that accidents have not been of the serious type involving permanent injury to employes but more often cut fingers, bruises resulting from falls, strained backs, and burned hands.

We spent part of one session in discussing the general rôle of the supervisor in employe safety. That accidents are largely the supervisor's responsibility was agreed, and stress was laid upon measures to be taken to break the sequence of steps leading to an accident. A corrective procedure for both the elements of an accident—human carelessness and bad conditions—was worked out for use.

With the short course finished and the supervisors back in their operating units, there remains the tough job of following up on the training in order to find results and to do a little evaluating. Training seems to be one of those things the value of which few will deny but which few can conclusively support on the basis of facts and figures. This may be true because facts and figures as shown in statistics may not be the only support for the value of training as such.

WHAT NEXT?

At any rate, these are the factors we must look into: (1) a follow-up program consisting of on-the-job visits with supervisors and managers, including casual discussion on many points; (2) talks with employes from time to time, preferably on the job; (3) close watch of the turnover record; (4) a study of the number of grievances arising and the essential ingredients involved in each; (5) a look at the record of employe accidents in these departments as compared with the past, and (6) an effort to feel the pulse of departmental employe morale and to attach some importance to those intangible, informal, but nonetheless convincing influences arising from efforts to change behavior and attitudes—the real objective of training.

If good results are not shown in these or other ways, we may be forced to conclude that the actual training was not done effectively because we know the need for it exists.

*These were taken from Food Service Employe Selection and Training, 1947, American Dietetic Association, Burgess Publishing Company.

HAZARDS IN THE BOILER ROOM

Head toward the nearest exit if you aren't prepared to follow these rules

JULIUS BARBOUR

Assistant Professor, Building Maintenance
Michigan State College
East Lansing

BOILER ROOMS ARE USUALLY equipped with an exit door which should be kept in good working order. This is true particularly when the operator of the boiler violates, knowingly or unknowingly, the rules of safety that are to be discussed in this article.

ORDERLINESS ESSENTIAL

The safety of a boiler room may be judged somewhat by the general cleanliness and orderliness of the room. Visitors get a poor impression of the operating engineer if open cans containing paint brushes are left on the work table, or if overfilled paper baskets are standing around and general litter is in evidence.

It is exceedingly dangerous to store in the boiler room stage flats which are of canvas covered with paint, since they are highly inflammable. Accumulations of baled wastepaper in the boiler room or any basement room are a constant invitation to fire, as well as to rodents. This is particularly true where wastepaper containing remains of food is baled.

A loose ladder in a boiler room should not be allowed. If it is ever necessary to use a ladder to service any part of a boiler, that ladder should be a part of, or securely fastened to, the boiler itself.

In the case of oil fired equipment, it is essential that any leak be repaired. An oil soaked floor in any part of a boiler room does not reflect good management. A bucket of sand should be installed within easy reach in each boiler room having oil burning equipment as a wise precaution for safety.

One difference between the novice and the trained boiler operator is his "ear." A certain series of noises in the operation of a chain grate stoker will sound natural to a man trained to work in a plant having such an installation. Many times an operator's ear will detect irregularities of operation if he knows the normal noises which are to be expected. Herein lies the great mistake of assuming that a beginner can take over a boiler after two or three easy lessons from the chief fireman.

We all tend to disregard danger as we become accustomed to working close to it. Any vessel in which steam is generated is capable of explosion. Boiler rooms, even carefully operated, have been scenes of fatal accident to operators, students and teachers. Low pressure boilers can blow the operator just as high as high pressure ones. It is a mistake to speak of one heating unit as less dangerous than another because it operates at a lower pressure.

LOW PRESSURE BOILERS

Low pressure boilers are usually less carefully run, have fewer mechanical safeguards and are a greater hazard than high pressure boilers. Some states require that a licensed operator run a high pressure boiler but allow anyone whom a board sees fit to employ to operate a low pressure boiler. In one state this policy has cost the lives of operators and students because of misjudgment of the caution needed in low pressure boiler operation.

Trouble that might occur in a boiler room should be anticipated and a course of action planned before an emergency. The opportunity to practice such action should be a part of the training of all boiler room men. Many states now provide training for workers in boiler operation and building maintenance.

The matter of records in a boiler room is important. These need be as long and detailed as is necessary to give management the few essentials it wishes to know. For example, in recording the amount of fuel used during a given month one operator weighed three wheelbarrow loads of coal carefully. Then he was able to estimate rather closely how much he burned during the time he was on duty each day. This he recorded along with the temperature at four-hour intervals. To know the amount of fuel burned and not relate it to the temperature will not give a true idea of the economy of steam production.

STOKERS CAN GIVE TROUBLE

Stokers sometimes give trouble and the common error of the "green worker" is that he attempts to replace a sheared pin rather than find out what caused the pin to shear.

A manual of operation or a print of the boiler or stoker should be framed and hung in the boiler room for ready reference by men on duty. Operators should know where the name plate is on every motor. The phase, horsepower and other information about a motor should be given by an employe who asks the maintenance department to repair or check the motor. A tag should be wired to parts serviced, giving the date and nature of the work done.

Check your boiler room by answering the questions listed below:

1. Is the boiler given a trial run a week or ten days before the opening of school? Is every radiator checked at the same time?
2. Is adequate fuel on hand to meet any weather emergency?
3. Has a record been made of the summer repairs and inspection of boilers so that trouble areas can be anticipated?
4. Are adequate requisition forms and heating records drawn up and mimeographed for use? Does each employe know the purpose of each record before he uses it?
5. Is there a calendar or other space available in the boiler room where spe-

cial events that require extra firing can be noted?

6. Is the work schedule of each fireman, engineer and custodian posted in the boiler room so that he can be located in an emergency? Are phone numbers listed beside the names?

7. Is the manual for operation of the boiler in the boiler room? If not, has one been ordered?

8. Has the boiler room been cleaned and repainted?

9. Are all containers for ashes made of metal? Are you sure there is no cardboard box to be used in case the metal containers are filled?

10. Are the spare parts (packing, valves and so on) stored in an orderly manner so that each may be located with a minimum of confusion? Do you have in stock enough parts commonly used so that you will not have to close a building while you order a needed part for a boiler?

11. Are the work benches clean and arranged in an orderly fashion?

12. Does every operator know where to turn off the gas, oil, electricity and water in case of emergency?

13. Are the safety valves of the boiler tested during each shift?

14. Does your fireman know how to "pull his fire" in case of an emergency? Has he shown you he knows how to do this?

15. Are records kept of fuel consumption and temperature (degree-days)? Are these ever discussed with boiler operators? Are they commented on favorably when a good combustion record is made?

RULES SHOULD BE IN EVIDENCE

16. Are stated rules of boiler room practice placed in permanent frames on the wall?

17. Are firemen hired with the idea of promoting them to be boiler operators as positions become available?

18. Are your boiler room employes enrolled in a self-study or class group seeking to improve their operating methods?

If most of the answers are "No" you had better take steps, and they had better be long ones and in the direction of the nearest exit.

LIBRARY GUARDED AGAINST Fire

IN ORDER TO REDUCE THE POSSIBILITIES of a disastrous fire in the new Harvey Firestone Memorial Library at Princeton University, plans were made by architects and engineers to see that all of the valuable books and manuscripts would be protected by a twenty-four-hour automatic fire extinguishing system.

Considerable advance planning was needed to provide for such a system. It was necessary to build in as the construction proceeded the various outlets and control centers that would stand guard over the 800,000 books and manuscripts now housed in the building.

The new library, costing $6,000,000 and six stories in height, is large enough eventually to hold 1,800,000 books and is air conditioned throughout. However, in view of the fact that the library will be in continual use and is subject to all the fire hazards induced by people continually coming and going, it was felt that even modern construction was not sufficient protection from fire.

In the basement—stack floor C—of the new library are twenty-eight cylinders, each containing 50 pounds of carbon dioxide. Manifolded together for automatic discharge of fire killing carbon dioxide, these cylinders are the source of the built-in extinguishing system designed by engineers to protect seven separate areas within the building.

Nerves of the automatic system are seventeen rate-of-temperature-rise heat actuators strategically located in the areas protected—receiving room, book cleaning room, supply room, book repair shop, and janitor's repair shop on the first floor, and the manuscript stock room and manuscript workroom on the second floor.

Serving these protected areas is a series of thirty-three shielded discharge nozzles connected by rigid piping to the carbon dioxide cylinder source in the basement.

In case fire breaks out in any of these areas as a result of electrical fault, or ignition of flammable liquids used in book repair work, or paint in storage, the heat generated quickly operates the heat actuators. Immediately an alarm sounds a warning for evacuation. After an automatically timed delay of less than a minute, release valves on the cylinders open and carbon dioxide rushes under its own power to the space afire.

Stored under pressure of 850 pounds per square inch, the carbon dioxide is in liquid form until it leaves the discharge nozzles. Upon hitting the air it becomes a gas and expands to 450 times its stored volume, reaching every nook and cranny of the room where fire has broken out.

As the carbon dioxide rushes through the piping it provides power to actuate pressure trips in the system that release duct dampers and self-closing doors and a pressure switch to shut off ventilating fans. This ensures total flooding of the fire space with fire killing gas that smothers fire by cutting off the oxygen supply that helps maintain it.

As an added safety measure the extinguishing system can be operated manually, either from any one of seven remote control pull box stations located at the exit from each of the seven rooms, or from local control pull boxes located at the cylinder manifold.

Because carbon dioxide is an inert gas that leaves no residue of any kind, it is well suited to the quick extinguishment of fire where perishable materials are stored.

LOOKING FORWARD

Mr. Truman and Higher Education

PRESIDENT TRUMAN'S REELECTION HAS SIGNIFICANT implications for higher education.

The President's Commission on Higher Education has pointed the direction that higher education might take. The reelection of Mr. Truman suggests that he will press vigorously to have the commission's recommendations become legislative accomplishment. Are these recommendations sound or unsound?

One of the major premises of the commission's report is that colleges and universities must plan for an annual enrollment of 4,600,000 students. This is double the enrollment figure of November 1947. Is this forecast realistic? If the figures are valid, how are these students to be accommodated and how are their accommodations to be financed?

The commission urges that public education through the two-year junior college level be made available tuition free to all Americans able and willing to receive it. This has serious financial implications for private colleges. The commission recommends that publicly controlled educational institutions eliminate all tuition and instructional fees during the thirteenth and fourteenth years and reduce upperclass student fees to the base existing in 1938-39. This would call for some pretty fancy business management when one looks at today's costs.

RECOMMENDS FEDERAL SCHOLARSHIPS

It is recommended that, beginning with this year, a federal appropriation of scholarship funds for needy students be set up to the amount of $120,000,000 and that this be continued annually for five years in an amount sufficient to provide scholarships for 20 per cent of the nonveteran undergraduate enrollment. Upon the basis of present enrollments, this would take care of about 300,000 students.

Further, it is urged that federal aid be extended to the forty-eight states in the gross amount of $53,000,000 "for the purpose of assisting the states in maintaining and expanding publicly controlled institutions of higher education in accordance with the program recommended by this commission." But he who pays the fiddler calls the tune—if we may be pardoned for digging up an old adage. To build up the college plant for such program (to cover a twelve-year period to 1960), the commission recommends an annual appropriation of $216,000,000 to assist the states in meeting the needs for adequate physical facilities for instruction. In addition, to quote the report, "the financing of adult education is a part of the total financial program, since it must be an integral part of the total educational services of colleges and universities."

The commission further states that its "plan should encourage the free flow of private funds to the support of higher education." The commission does not contemplate complete public support of higher education but rather "it believes that the welfare of the nation can best be served by the continuance and vigorous expansion of private, as well as public, support of institutions of higher education." It may not be complete public financial support of higher education, but it constitutes a husky competitor to private education, to say the least!

UNIVERSITY MUST CONTROL RESEARCH

What phases of the commission's report might be held to be most acceptable and to further the best interests of higher education? It would seem that the recommendation regarding a national scholarship program represents the least threat to academic freedom and the greatest contribution to equalizing educational opportunity for those qualified to take advantage of a college education. Such scholarships should be awarded on a competitive basis with competition restricted to prospective students who, for financial reasons, might otherwise be denied the opportunity of college work.

Likewise, grants to colleges for government research might be considered acceptable, though there is an inherent danger in regard to the types of research that might be emphasized if government funds became the major factor in a university's research program. In such research the university must retain control and supervision of the staff involved in the project. It must not permit that control or supervision to be exercised by a third party.

Had college and university business officers been permitted to function as members of the President's commission, their participation might have brought more business sense and less fantasy to its deliberations and recommendations.

QUESTIONS AND ANSWERS

Purchasing Responsibility

Question: Should purchases for residence halls, dining rooms, and union buildings be handled through the purchasing agent's office?—M.D.D., Iowa.

ANSWER: There is no quick and easy answer to this question if the purchase of food is included. I should definitely place all other requirements, such as linen, furniture, maintenance supplies, china and silver, as the purchasing department's responsibility. In the case of food, if the purchasing personnel is qualified and equipped to purchase food, it should usually do so. If not, and someone else is, it might be better to delegate that share of the buying rather than to train a food buyer from the ground up.

In the case of a union building, if there is a bookstore, snack bar, or soda fountain, the purchase of goods for resale might be considered primarily as a merchandising function rather than as a function of the purchasing department.—LESLIE ROBBINS, *purchasing agent, University of Colorado.*

Cleaning Costs

Question: Various building organizations have computed their cleaning costs to a unit cost per square foot of usable floor space per year. Could you furnish such an average cost per square foot per year for cleaning university buildings?—C.T., Ind.

ANSWER: I know of no recent surveys relating to costs of janitor service per square foot of floor space per year for university buildings. Such surveys were made during stable times, but even then comparisons were difficult and costs varied from 2 cents to 6 cents per square foot per year.

The difficulty came about because accounting practices in the various universities varied considerably. For instance, some might charge chalk, foot mats, light bulbs, pest eradicators, elevator operators, and other costs to janitor services, whereas other institutions did not but did charge different items.

The only survey of value would be one set up on the basis of a specification and definition of terms that would be used by all alike. However, it would be difficult to obtain cooperation in such a survey because all institutions would have to revise their accounting systems to meet the special requirements. The amount of work involved would "scare out" most potential participants.—A. F. GALLISTEL, *director of physical plant, University of Wisconsin.*

Purchasing Authority

Question: What is the general policy in college purchasing in regard to the acquisition of visual aid materials? Does the business officer or the department head carry the purchasing authority for visual aid materials or equipment?—J.R.R., Ill.

ANSWER: If a recent field survey by the managing editor of COLLEGE AND UNIVERSITY BUSINESS may be interpreted as indicative, the majority prefer that the business manager or purchasing agent be responsible for purchase of slide projectors, screens and motion picture projectors. Of twenty-four institutions recently contacted, fourteen purchased such equipment through the business manager or purchasing agent's office, while nine permitted department heads to purchase it. In the latter case, however, the purchase order was still subject to review by the business office, with one or two exceptions.—H. W. H.

Student Loans to Vets

Question: When a veteran's educational entitlement under the G.I. bill is exhausted, what is the institution's responsibility relative to a student loan if it is needed in order to complete the academic year?—W.B., Conn.

ANSWER: The institution should accept responsibility for maintaining an accurate record of the amount of entitlement time each veteran has remaining. It also should accept responsibility for early notification of the veteran when it appears that his entitlement will expire on a date such that he will have to be responsible for part of his tuition.

The veteran should be urged to make private arrangements to finance the portion of his charges the Veterans Administration will not pay. If this is not possible, he should be referred to the student aid committee and advised that he must complete arrangements for the full semester before he registers. Permitting a veteran to be enrolled up to his entitlement expiration date without knowing how the remainder of the semester is to be financed is embarrassing, both to the college and the veteran.

While loan policies for veterans should be slightly more liberal than for nonveterans, loans should be made on a sound business basis. Requirements should be upperclass standing, proven need, demonstrated ability, and sound moral character. Loans should not be made merely because the student has been enrolled as a veteran.—T. E. BLACKWELL, *treasurer, Washington University.*

State Appropriations

Question: Must high student-teacher loads and overcrowding be the only justification for obtaining increased appropriations for state colleges?—H.H.C., Vt.

ANSWER: Justification for state appropriations for salaries and operations for state colleges may include the following general considerations:

1. Increase or decrease in student enrollments. Operating costs are not directly proportional to such enrollments.

2. Increase or decrease in salaries and wages for both academic and nonacademic staffs.

3. Increase or decrease in cost of materials and supplies normally purchased.

4. The distribution of enrollments. Teaching costs are heavier in junior and senior years, and in graduate and professional colleges, than in the freshman and sophomore years.

5. Desirable expansion or betterment of present educational and related programs.

6. Proposed new educational and related programs.

7. The fluctuations in income from sources other than state appropriations.—FRED AMBROSE, *business manager, State University of Iowa.*

NEWS

Propose Draft Deferment for Science Students . . . Would Modernize Building Codes . . . Highest Enrollment in College History . . . Bills Drafted for 81st Congress . . . Investigation of Communism in Colleges Abandoned

Washington Correspondent: BEN BRODINSKY

Want Deferment of Talented Students in Specialized Fields

WASHINGTON, D.C.—"Some kind of plan for the deferment of scientific students will be outlined during the next several weeks," predicts James O'Brien of the National Security Resources Board.

The board and the selective service system are studying a number of schemes calling for the deferment from the draft of talented students in scientific and technical fields.

Most important of these was proposed by the American Council on Education and its committee on relationships of higher education to the federal government. The plan's essential features are:

1. That all college and university students be deferred until the end of their sophomore year.

2. That the federal government, with the help of educational agencies, estimate the number of persons who will be needed each year to meet military and civilian needs in medicine, engineering, chemistry, teaching, research and other specialized fields.

3. On the basis of these estimates, each college and university is to be allotted a quota for the training of students in each of the specialized fields.

4. During the sophomore year (at the end of which the student would be eligible for induction) college authorities would have the right to certify to draft boards those individuals who are to continue their training until they complete their courses. The college or university would select only students giving the highest promise of success through national competitive examinations.

5. The local draft boards would be required to accept the college certification and defer the students until the end of their training.

6. At the end of his training, each student would be further deferred so that he could continue research or practice in the specialized field for which he was trained. As an alternative step, however, he might be inducted into the armed services but assigned to work in the specialized field for which he had prepared himself.

Draft Legislation to Change Building Codes

WASHINGTON, D.C. — The federal government has drafted model legislation that would help municipalities adopt modernized building codes with a minimum of cost. If enforced, up-to-date building codes can help reduce construction costs through elimination of archaic practices.

"One difficulty in adopting new building codes has been the cost involved of providing public notice of proposed ordinances often required by law," says the Housing and Home Finance Agency.

Publication of proposed ordinances in newspapers for public notice is often prohibitive in cases of lengthy and involved building codes, some of which are books of several hundred pages.

The Housing and Home Finance Agency has drafted a model statute, for consideration by each state legislature, which would allow municipalities to adopt a new building code "by reference."

Under this plan, so long as a proposed code has been made available for ready public examination, it need only be properly identified in the ordinance instead of having its full text published. Thus, excessive costs in connection with the adoption of codes or revisions would be cut. At the same time, adequate public notice of the proposed code protecting the public interest would be given.

Peak Enrollments for Third Consecutive Year, Office of Education Reports

WASHINGTON, D.C. — Enrollments in the nation's colleges and universities have climbed to a new peak of 2,410,000.

In releasing the results of the 1948 survey of college enrollments, the U.S. Office of Education said that the 1948 figure had increased by 72,000 students over last year.

Veterans, who formed about half the college student body in 1947, account for only 42 per cent of this year's total enrollment. The junior colleges are losing the largest number of veterans, presumably because the G.I.'s either are graduated or go on to other institutions. All told, there was a drop of 100,000 in the number of veterans enrolled.

The Office of Education revealed that the ten institutions with the largest enrollments are New York University, 47,647; University of California, 43,469; City College of New York, 28,567; Columbia University, 28,000; University of Minnesota, 27,243; University of Illinois, 25,920; Ohio State University, 23,929; Northwestern University, 23,788; University of Indiana, 23,131; University of Southern California, 22,740.

"The most important single fact learned in the 1948 enrollments survey," says the Office of Education, "is that the holding power of the colleges is increasing and the drop-out rate is slowing down."

Men still outnumber women almost 3 to 1 in American colleges and universities, with the proportion of women students this year showing little change over last fall. The 3 to 1 ratio holds in the large universities, although it goes down to slightly less than 2 to 1 in the liberal arts colleges.

Scientists to Give Aid to Those With Loyalty Problems

PRINCETON, N.J.—Fifty-three college and university scientists have set up a scientists' committee on loyalty problems under the auspices of the Federation of American Scientists, according to a recent announcement by Prof. Henry De Wolf Smyth, chairman of the department of physics at Princeton University.

The federation was spurred into action by a feeling among scientists that "political persecution" of atomic scientists had created a serious situation.

The committee, with headquarters at Princeton, will provide information and legal advice to individual scientists faced with clearance problems. It will attempt to bring about a clear understanding of the issues involved in loyalty and clearance situations. Professor Smyth stated that the committee will not "defend" scientists under investigation but will seek to obtain full and fair hearings by government agencies and congressional committees and fair treatment in the press.

In commenting on recent cases, Professor Smyth pointed out that "the doctrine of guilt by association seems to have been carried to absurd lengths. And it is significant that associations have been the principal or entire basis for loyalty action. Although the question may be raised as to whether scientists who have agreed to do secret work should be afforded the complete freedom in their social lives enjoyed by other citizens, we do believe that, in any case, restrictions imposed should be made clear before a person begins secret work."

Halt Investigation of Communism in Colleges

WASHINGTON, D.C. — Plans for investigating communism in schools and colleges have been virtually abandoned until the 81st Congress is ready for work.

The House Un-American Activities Committee, whose agents have been collecting evidence on allegedly subversive activities in colleges and universities, is in shambles this month. Two of its members, Representatives McDowell (Pa.) and Vail (Ill.) were defeated in the last election. Another member, Karl Mundt (S.D.), was elected to the Senate. Committee Chairman Thomas is under indictment in Washington on charges of conspiring to defraud the government.

"With that kind of a situation," said a committee spokesman, "all we can do is sit tight and wait until the Democrats take over."

Publication of the committee's report, "One Hundred Facts About Communism in Education," has been indefinitely postponed.

New Officers for Land-Grant Colleges

WASHINGTON, D.C.—Dr. John A. Hannah, president of Michigan State College, was elected president of the Association of Land-Grant Colleges and Universities for the coming year.

At its annual conference, November 9 to 11, the association named President J. L. Morrill, University of Minnesota, chairman of its executive committee.

Other new executive committee members include: President Arthur Adams, University of New Hampshire; President Lewis W. Jones, University of Arkansas; President J. R. Killian Jr., Massachusetts Institute of Technology, and Associate Dean Jessie Harris, University of Tennessee.

R. I. Thackrey was reelected executive secretary.

The next convention of the association will be held in Kansas City, Mo., on Oct. 23, 1949.

Fordham Program Involves Millions

NEW YORK CITY.—The Rev. Robert I. Gannon, president of Fordham University, recently announced a construction program for the university which would require $3,000,000 during the next few years.

"It will not be a program of extravagance," Father Gannon said, "but one that will provide ordinary first-class instruction and will provide and maintain adequate housing facilities."

High on the list of proposed additions is a residence hall to house 200 students. The present temporary housing on the campus will be removed in January 1950. Father Gannon also mentioned the need for an athletic stadium "not to overemphasize athletics at the institution but to aid a back-to-the-campus movement."

Blueprinting Bills for 81st Congress

WASHINGTON, D.C. — Victorious Democratic officials in the executive branch are blueprinting a vast program of educational legislation for the 81st Congress.

Busiest are experts in the Department of Labor and the Federal Security Agency, since these two units are concerned with welfare and educational problems. They have direct orders from President Truman to prepare drafts of bills they want to see introduced at the next session of Congress. President Truman also asked for their views on the timing of the introduction of the bills.

Oscar Ewing, Federal Security Administrator, said that he would urge legislation calling for federal aid to education; compulsory health insurance; a school health program; social security coverage for all those not now under the system, which includes college and university employes; an expanded U.S. Children's Bureau; increases in grants to dependent children, and a new Department of Social Security, Health and Education.

Secretary of Labor Maurice Tobin is drafting legislation to create a new bureau for workers' extension education (to parallel the farm extension service), and a stronger U.S. Employment Service that would provide job guidance and counseling services for youth.

The bureau of the budget also is reviewing drafts of bills calling for the creation of a national science foundation, the functions of which would be to administer federal scholarships for talented youth and U.S. financed research programs.

Requests State Funds for Building Additions

DETROIT.—Wayne University has requested $2,500,000 from state funds to provide additions to its state-financed classroom and science buildings, according to Dr. David D. Henry, president.

The proposed additions to the two buildings were an integral part of the basic plans, but rising production costs prevented their completion within the appropriations previously made. Sites for the $1,000,000 addition to the science building are already owned by the university.

Warns That Teachers' Strikes May Spread to College Level

NEW YORK CITY.—In an address before a recent meeting of the Chamber of Commerce of the State of New York, Dr. Henry M. Wriston, president of Brown University, stated that "teachers' strikes may spread to the college level unless salaries are increased and the attitude of the American public is improved."

Dr. Wriston pointed out that the present annual average salary of professors is less than $5000, which is "too low by at least 50 per cent." He pointed out that fewer than fifty professors in the nation earned as much as $25,000 a year. He indicated that should this situation continue college professors might be forced to follow the example of school teachers and adopt pressure tactics.

Dr. Wriston stated that "the cure is not to denounce or to harry the faculties; it is to reform the situation which makes the intellectual bear the burdens without sharing the rewards. It is to recognize his strategic, indeed his vital, place in our economy and our society and to proceed rationally and with as much light and as little heat as possible to redress the balance."

Federal Support Program Is Criticized

NEW YORK CITY.—Dr. Harry Woodburn Chase, chancellor of New York University, recently released his annual report in which he sharply criticized the federal support program as suggested by the President's Commission on Higher Education. He felt that the President's program might mean the destruction of an independent college or university.

"Except for establishment of a national scholarship program in proportions sufficient to eliminate economic barriers against any qualified student," Dr. Chase declared, "the efforts of the federal government should be restricted to encouraging local and state governments to meet their own responsibilities.

"The channeling of financial assistance primarily in the direction of tax supported institutions, as urged by the commission," Dr. Chase observed, "will place privately supported colleges and universities in a position where they may have either to surrender to public control and subsidy or to liquidate. The independence of American higher education must be preserved; against anything which threatens that independence, I would pledge a vigorous and determined stand."

Harvard Going Modern in Building Project

CAMBRIDGE, MASS.—Harvard University will soon build its first wholly modern building as a result of favorable action recently granted toward a project calling for the expenditure of $3,000,000 for seven graduate residence halls and a commons hall.

Construction of the Harvard commons project is scheduled to start next June 20. At present the site is occupied by temporary housing facilities for war veteran students.

The new residence halls will house 600 of Harvard's 6310 graduate students. Estimates are that there will be an expenditure of $3500 per student housed.

The Harvard Corporation has awarded the architectural contract to Dr. Walter Gropius, chairman of the Harvard department of architecture, and his firm known as "The Architects Collaborative." The group includes seven young architects, two of whom recently won first prize in the Smith College residence hall competition.

Sabbatical Leaves for Junior College Faculty

NEW LONDON, N.H.—Sabbatical leaves are now available to Colby Junior College faculty members, President H. Leslie Sawyer revealed recently. With the inauguration of the system approved by the board of trustees in June, Colby becomes one of the first junior colleges to provide its teachers with extended periods of rest or study.

At the end of each seven years of continuous teaching service an instructor may be absent from college for one semester or one entire year with one-half his stated salary for the period. Not more than three faculty members may be absent during one semester or college year. No faculty member has yet taken advantage of the new plan. Application for leaves must be made six months in advance.

Study Support to State Universities

NEW BRUNSWICK, N.J.—On the basis of its ability to pay, New Jersey ranks near the bottom of the states in the support of its state university, according to a recent survey of state universities which was made by Dean Albert E. Meder of Rutgers. Dean Meder obtained information on the financial support of twenty-six state universities from the comptrollers or other fiscal officers of those institutions.

In only five of the states studied was the per capita support of the state university less than in New Jersey. The states included in the survey and their per capita expenditures in the support of their state universities are as follows:

Wyo.	$7.99	Me.	$1.18
Vt.	2.97	Okla.	1.11
Neb.	2.59	Tenn.	1.02
Ill.	2.57	Mo.	1.01
Wis.	2.44	Colo.	0.96
N.D.	2.22	Ky.	0.89
La.	2.30	S.D.	0.76
Ariz.	2.18	N.J.	0.73
Md.	1.87	Tex.	0.64
Conn.	1.81	Ala.	0.62
N.H.	1.53	N.C.	0.34
Mich.	1.49	Mass.	0.29
Mont.	1.29	Miss.	0.27

Memorial Student Union Building for DePauw

GREENCASTLE, IND.—Construction on the first unit of the proposed Memorial Student Union Building at DePauw University will begin next year, with ground to be broken at commencement in June, according to Dr. Clyde E. Wildman, DePauw president.

A two-year fund campaign has brought approximately $325,000 of the initial subscription mark of $475,000, the sum originally deemed necessary for construction. A recent analysis of construction estimates for the original building, however, would place overall costs around $800,000 at the present time. Revised and modified plans for the memorial place the expected total around $600,000.

Building plans call for erection of a central unit which will comprise those features deemed most desirable, with additional wings to be constructed when funds permit expansion.

NEWS

Stanford Inaugurates Retirement Plan for Nonacademic Employes

STANFORD UNIVERSITY, CALIF.—A retirement plan for nonacademic employes of Stanford University will be put into effect January 1, it was announced recently by Acting President Alvin C. Eurich.

The plan will cover all full-time nonacademic employes who have completed two years of service and are over 35 years. It will include benefits for service at the university prior to the effective date.

Both the university and its employes will contribute to the retirement plan. Employes will pay in 5 per cent of their monthly salary; the university will bear the entire cost of benefits for service prior to Jan. 1, 1949, and will contribute considerably in excess of employes' contributions for future service benefits. Retirement age will be 70 for men and 68 for women.

Dr. Eurich pointed out that in instituting the retirement program, the university is assuming an obligation estimated to be more than $1,000,000, to be amortized over a period of years, to cover the premiums for past service. More than 650 university employes are now eligible; twenty-nine of them are already over 70 and eligible for annuities under the plan.

Benefits will take two factors into consideration: past service and future service. For past service (up to Jan. 1, 1949) employes will receive 1.25 per cent of their present monthly salary for each year of credited service. Future service (after Jan. 1, 1949) will bring them 1.50 per cent of their monthly salary for each year of service.

Ohio State Standardizes Rentals on Facilities

COLUMBUS, OHIO.—A new schedule of rental charges for apartments in Ohio State University's River Road housing project was announced recently by Dr. Bland L. Stradley, university vice president.

Under the plan, which will go into effect January 1, rents will no longer be charged on an "adjusted" basis according to income of the occupant but will be standardized on the basis of facilities occupied. The new schedule will not increase the total amount collected by the university for rental of its apartments, Dr. Stradley said. The revised rentals will be $30 monthly for a combination living room-bedroom apartment, $35 for a single bedroom apartment, and $40 for a two-bedroom apartment.

Dr. Stradley said that the new schedule will result in a rent reduction for 206 families now occupying the apartments and an increase for 134 families. Rent for five units will be unchanged.

Renews Campaign for Union Building Funds

EVANSVILLE, IND.—The Evansville College board of trustees recently authorized construction of a union building on the campus next spring, provided the college raises $100,000 for the purpose before that time.

A campaign for half a million dollars for a union building was held during the summer and fall of 1947 and brought in slightly more than $400,000. A renewal of the campaign to complete the goal will start soon under the direction of Dr. Lincoln B. Hale, president of the college.

Fairly definite plans have been drawn up for the building. The trustees have authorized the executive committee to review union building plans with architects with the view toward obtaining bids to determine costs.

Permission Needed for Disposal of War Surplus

WASHINGTON, D.C.—George H. Field, commissioner of the Federal Works Agency in charge of the bureau of community facilities, has called attention to an error recently published in these columns regarding disposal of useless surplus property.

Commissioner Field points out that any surplus material considered unusable or in the junk or scrap category may not be disposed of by a college or university until permission for such action has been given by the division engineer of F.W.A. in the district in which the college is located.

Nine offices have division engineers assigned to them. These are in New York City, Washington, D.C., Atlanta, Ga., Chicago, Kansas City, Mo., Fort Worth, Tex., San Francisco, Seattle and Denver.

Land-Grant Colleges Take Stand at Their Washington Conference

WASHINGTON, D.C.—In a series of actions affecting higher education, the Association of Land-Grant Colleges and Universities last month took positions on the following issues:

1. Approved extension of the Social Security Act to include employes of public colleges and universities.

2. Disapproved the establishment of a labor extension education service, calling instead for federal support for a general extension service for all adults, including workers.

3. Asked the Federal Communications Commission to reserve television frequencies for the use of educational institutions until such time as schools and colleges may be in a position to use them.

4. Decided to set up a new committee to control the "undue influence" that professional accrediting agencies try to exert over higher educational policy.

The association also made it clear that it is not attacking the regional accrediting agencies but those in specialized fields, such as medicine, journalism and law, which seek to set standards for college courses and departments. The association invited the American Council on Education, the Association of American Universities, the Association of State Universities, and the Association of Urban Universities to help in setting up the proposed committee on accrediting.

Actions were taken by the 500 delegates who came here for the 62d annual conference of the association.

Cost-of-Living Increase for Faculty and Staff

Marietta, Ohio.—A cost-of-living adjustment has been made for all Marietta College faculty and staff members.

The increase, voted by college trustees at the fall meeting, was announced to the faculty by President W. Bay Irvine. Increases range from $110 to $320 for the year, with a like amount prorated for part-time faculty members.

The increases will continue through next May for the faculty and through next August for office personnel. Buildings and grounds workers previously received an hourly increase.

Army Aids Officials in Counseling Draftees

WASHINGTON, D.C.—Under orders of Gen. Omar Bradley, chief of staff, the Department of the Army last month prepared a booklet to help college officials counsel young men about to be inducted into military service.

Titled "Service Facts," the booklet lists 100 questions and answers about careers in the army, and the opportunities it provides for meeting the educational and spiritual needs of draftees.

Copies will be distributed through the U.S. Office of Education to 40,000 key school executives and guidance counselors.

The publication is part of the War Department's effort to keep school administrators informed of how the new army is being humanized.

General Bradley holds that it is no longer enough to equip and train a man to fight. "To make him a good soldier he must be taught to understand the greatness of American democracy, and why he is being called into service at this time," the General said.

The General is also studying a proposal that a liaison committee be set up in the Pentagon to develop closer relationships between educators and the War Department during the period of the army's expansion through selective service.

Propose Salary Raise for Education Commissioner

WASHINGTON, D.C.—A proposal to raise the salary of the U.S. Commissioner of Education from $10,000 to $18,000 a year is under study by the Senate civil service committee.

The committee plans hearings this month on a bill that would raise not only the education commissioner's salary but also those of secretaries of departments, undersecretaries and heads of major agencies.

A statement from the Senate committee, issued last month, said that better salaries would help the government to attract and keep better people in federal service.

The salaries of federal executives haven't been raised in years. The U.S. Commissioner of Education's salary of $10,000, fixed by Congress in 1925, is now worth only $3500 under Washington cost-of-living standards.

GIFTS AND BEQUESTS

• **Santa Barbara College** officials have announced the acquisition of 428 acres, valued at more than $1,000,000, as well as 100 buildings as the result of acquiring title to the former marine base at Goleta, Calif. The new property was acquired from the War Assets Administration.

• **Northeastern University's** president, Carl S. Ell, recently announced that the institution had concluded its fiftieth anniversary fund drive for $1,300,000 by oversubscribing to the amount of $1670.

• **Union College** alumni have begun a campaign to raise $500,000 to construct an athletic field house as a memorial to the seventy-six former students who died in World War II. The field house at Schenectady, N.Y., is expected to enclose approximately 35,000 square feet of playing area.

• **Pennsylvania College for Women,** Pittsburgh, received a gift of $100,000 in securities from an anonymous donor, according to a recent announcement by Dr. Paul R. Anderson, president. The gift was the first contribution toward a proposed building to house administrative offices, classrooms and a little theater.

• **Roosevelt College,** Chicago, was one of the recipients of a $5000 scholarship gift from the recently established Sidney Hillman Foundation. The Sidney Hillman Fund, established in memory of the late union leader, consists of $1,000,000 raised through voluntary contributions by union members and clothing trades' employers. Funds are to be expended by the foundation over a period of twenty-five years.

• **University of Michigan's** board of regents recently announced the acceptance of gifts amounting to $29,623.10. The largest gift was from L. J. Montgomery of Battle Creek, Mich., who gave 385 shares of Kellogg Company stock with a current value of $12,124.97 for an expendable fund to be used for bronchial asthma research.

• **Cornell University** officials recently announced that a gift of $109,000 from the estate of Joseph L. Stichter had been added to the endowment of the college of engineering.

• **Harvard Law School** is planning to launch an alumni campaign to raise $2,500,000 to meet construction and academic needs. The campaign is expected to be conducted early in 1949.

• **Princeton University** recently broke ground for the Class of 1915 Building, a campus residence hall to be built with a $315,000 gift.

• **University of Pennsylvania** recently appointed Thomas S. Gates Jr., son of the late head of the university, as the new chairman of the university's $32,000,000 development fund. It was announced at the time of the appointment that $3,273,839 had been raised in the fund drive to date.

• **Brown University's** president, Henry M. Wriston, has announced a gift of securities with a present value of $400,000 from John D. Rockefeller Jr. The funds are to be allocated to Brown's housing and development program.

• **Dickinson College,** Carlisle, Pa., has received 493 gifts totaling $207,000, which represents 20 per cent of the $750,000 fund the college is seeking to raise in thirty months for endowment purposes and a new residence hall for women students.

• **Union College,** Barbourville, Ky., reports receipt of a gift in stock valued at $21,600 from the late Sherman Clegg of Dayton, Ohio.

NAMES IN THE NEWS

Dr. Robert W. McEwen, president of Blackburn University since 1945, has been named to the presidency of Hamilton College and will take office February 1. He will succeed **Thomas Brown Rudd,** controller, who has been serving as acting president since the death of **David Worcester.** Dr. Rudd will continue in his position as controller when Dr. McEwen assumes the presidency.

Kenneth J. Plant has been named comptroller of Rensselaer Polytechnic Institute to succeed the late **William B. O'Neil,** according to a recent announcement by President Livingston W. Houston. Mr. Plant has been a staff member in the college treasurer's office since 1935 and was appointed auditor several years ago.

NEWS

R. C. Williams, director of educational activities at the University of Oregon, has been named director of the new Erb Memorial Student Union at that institution. He will take on the student union work in addition to his present duties. Mr. Williams is a graduate of the university, having received his degree in journalism in 1941.

Goodloe R. Stuck, director of public relations at Centenary College of Louisiana for the last two years, has recently resigned to accept the advertising managership of a Shreveport manufacturing concern.

Priscilla Humphreys has been named recorder and director of placement at Russell Sage College, Troy, N.Y.

Dr. Ralph B. Draughon, acting president of Alabama Polytechnic Institute since the death of **Luther Noble Duncan,** recently was named president.

Marjorie Tiernan, recently director of the Omaha Y.M.C.A. food service department, has been named director of food service for the University of Nebraska Union. **Clyde Irwin,** formerly a student employe of the union, has been named manager of the Nebraska Agricultural College Union.

Harold E. Haney, formerly superintendent of buildings and grounds at the University of Mississippi, has been

H. E. HANEY

J. W. WHITE

named purchasing agent. A graduate of the university in 1939, he joined the staff in 1946. **John W. White,** assistant superintendent, has been named acting superintendent of buildings and grounds to succeed Mr. Haney.

Brother Alexis Klee, formerly dean of the college department of St. Joseph's Novitiate, Metuchen, N.J., has been named president of St. Stanislaus at Bay St. Louis, Miss. He will succeed the late **Brother Peter, S.C.,** who died this fall.

Jess Harrison Davis, former dean of administration of Clarkson College of Technology, recently was inducted as the eighth president of the college. He had been serving as acting president since June 1947.

Raymond B. Paty, chancellor of the University of Georgia, will leave the educational field on January 1 to become director of public relations for Rich's department store in Atlanta, according to a recent announcement.

Jacob B. Taylor, business manager of Ohio State University, has been given the additional title of vice president. Until his appointment as business manager in 1946, he was chairman of the department of accounting at the university.

Leslie B. Newhouse has been appointed business manager of the Vanport Extension Center at Vanport, Ore.

Mildred A. King has been appointed to the newly created post of director of the union building at Drury College, Springfield, Mo.

Mary Kimball Morgan, founder and first president of The Principia, Elsah, Ill., died recently at the age of 86 years.

Arthur F. Harman, president emeritus of Alabama College at Montevallo, died of a heart ailment recently at 73 years of age.

Rev. Mother Mary Bernard, Superior-General of the Sisters of Providence and president of Saint Mary-of-the-Woods College in Indiana, died recently. She had been president of the college since 1938.

Edward C. Miller, retired business manager of Virginia Polytechnic Institute, died recently at 72 years of age. He was business manager of V.P.I. from 1922 until July 1945.

Dr. Alexander Guerry, vice chancellor and president of the University of the South at Sewanee, Tenn., died October 19 an hour after suffering a heart attack in a railroad station. He was 58 years old.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association

President: Herbert Watkins, University of Michigan; secretary-treasurer: L. R. Lundon, University of Minnesota.

Eastern Association

President: Henry W. Herzog, George Washington University; secretary-treasurer: Boardman Bump, Mount Holyoke College.

Southern Association

President: W. T. Ingram, Alabama Polytechnic Institute; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: Paul A. Walgren, University of Southern California; secretary-treasurer, George A. Hall, California Institute of Technology.

Schools for Negroes

President: V. D. Johnston, Howard University; secretary: L. H. Foster Jr., Tuskegee Institute.

Association of College Unions

President: Vernon L. Kretschmer, University of Illinois; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 27-30, Broadmoor Hotel, Colorado Springs, Colo.

Association of Physical Plant Administrators of Universities and Colleges

President: William F. Holman, University of Minnesota; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: May 1949, University of Arkansas, Fayetteville.

American College Public Relations Association

President: Max E. Hannum, Franklin and Marshall College.

College and University Personnel Association

President: Donald E. Dickason, University of Illinois; secretary-treasurer: Marion Darr, Purdue University.

National Association of College Stores

President: John H. Jenkins, St. Louis University; executive secretary: Russell Reynolds, 189 West Madison Street, Chicago.

National Association of Educational Buyers

President: Charles W. Hoff, University of Omaha; secretary-treasurer: Bert C. Ahrens, 45 Astor Place, New York, N. Y.

Convention: May 11-14, Hotel Statler, Boston.

PRODUCT INFORMATION

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Film-a-Record Reader-Desk

569 Lyon Metal Products, Inc.
Steel-Wood Shelving

570 Owens-Corning Fiberglas Textile Div.
"Coronized" Fiberglas

571 American Mat Corporation
"Corrugated-Sponge" Matting

572 Corning Glass Works
Pyrex Ball and Socket Joint

573 Day-Brite Lighting, Inc.
Lenox Fluorescent Fixtures

574 Montgomery Mfg. Co.
Montgomery Timers

575 Radio Music Corporation
RMC Transcription Player

576 Underwood Corporation
Duplex Carbon and Fabric Ribbon Machine

577 American Floor Surfacing Machine Co.
Floor Maintenance Machine

578 The Colad Company, Inc.
Plasti-Coat Book Cover

579 General Fireproofing Co.
Tablet Arm Chair

Key

580 Temprite Products Corp.
Bottled Water Cooler

581 Detroit Hardware Mfg. Co.
Interlocking Sash Lock

582 International Business Machines Corp.
Master Time Control

583 The Safe Tread Co., Inc.
Anti-Slip Ceramic Tile

584 Carman & Co., Inc.
Antiseptin

585 Kent Electric Corp.
Kent Floor Conditioner

586 American Photocopy Equipment Co.
Improved Photocopy Unit

587 Amcoin Corporation
Amcoin Thermostat

588 Plastic Enterprise
Protractor-Geometrical Rule

589 Radiant Mfg. Co.
Champion Model K Screen

590 Huntington Laboratories, Inc.
Non-Slip Floor Polish

591 W. J. Voit Rubber Corp.
Voit ATJ Tennis Ball

Key

592 C. H. Dutton Company
Econotherm Steam Generator

593 General Electric Co.
Slimline Germicidal Lamp

594 Ampro Corporation
"A New Tool for Teaching"

595 Natco, Inc.
Accessorires Folder

596 Neumade Products Corp.
Catalog

597 Louis Rastetter and Sons Co.
Folder on Magnesium Folding Chairs

598 United Leboratories, Inc.
"Protect That Roof!"

599 Loxit Moulding Co.
Catalog No. 3-48

600 The Marble Institute of America
Handbook

601 S. Blickman, Inc.
Sink Catalog

602 American Tile & Rubber Co.
"Floors of the Future"

603 Wade Manufacturing Co.
Catalog W-55

604 The Autocall Company
Folder on Fire Alarm System

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INSTITUTION _____

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"Tests Show Savings of 15% With Hotpoint Equipment"

Robert Gardner, Mgr. Morrison's Cafeteria, Tampa, Florida

At right, Hotpoint baking and roasting ovens in Morrison's Cafeteria Kitchen.

Morrison's Cafeteria Cuts Meat Shrinkage 9% —Saves 10% to 15% in Deep Fat Frying

HOTPOINT Electric Cooking Equipment has proved so successful in the Tampa restaurant of the Morrison Cafeteria Company, that similar equipment now is being installed in its Daytona Beach and Sarasota cafeterias.

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Every Day With Hotpoint!

1. **Saves Food Flavors**—Conserves maximum of natural juices, gives uniform results.
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3. **Cuts Labor Costs**—Saves hours for cook, saves on cleaning and scouring, too.
4. **Lasts Twice As Long**—Independent study shows depreciation rate is cut in half.
5. **Cuts Maintenance Costs**—Analysis shows annual costs average 1-1½% of investment for Hotpoint, 2-5% for most flame types.
6. **Saves Kitchen Space**—Compact, easy to install in most efficient arrangement without regard to chimneys.
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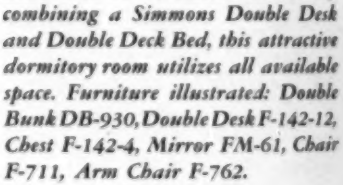
Illustrated above, Room No. 146. By combining a Simmons Double Desk and Double Deck Bed, this attractive dormitory room utilizes all available space. Furniture illustrated: Double Bunk DB-930, Double Desk F-142-12, Chest F-142-4, Mirror FM-61, Chair F-711, Arm Chair F-762.



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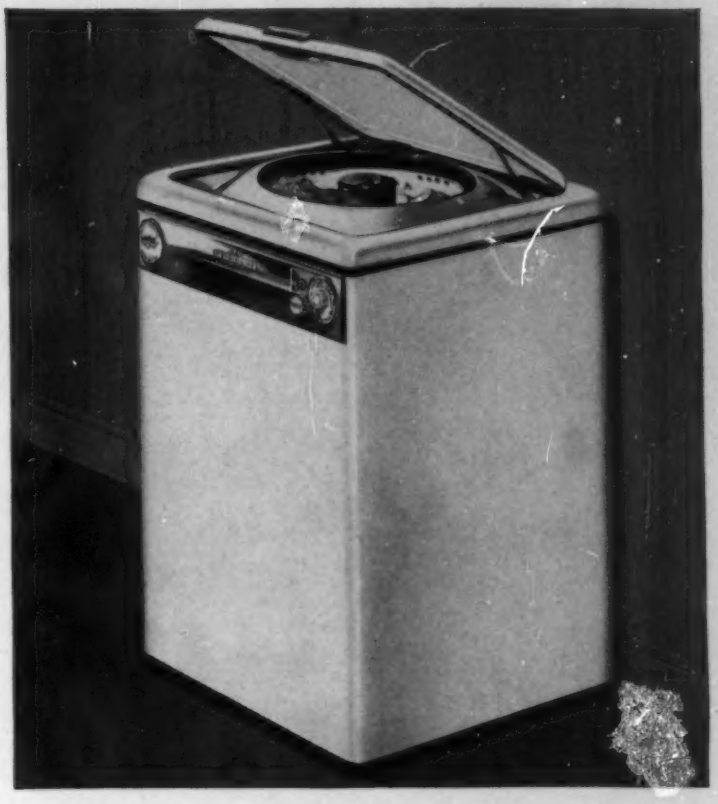

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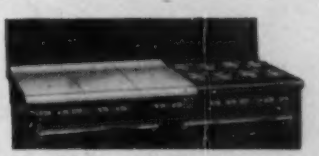

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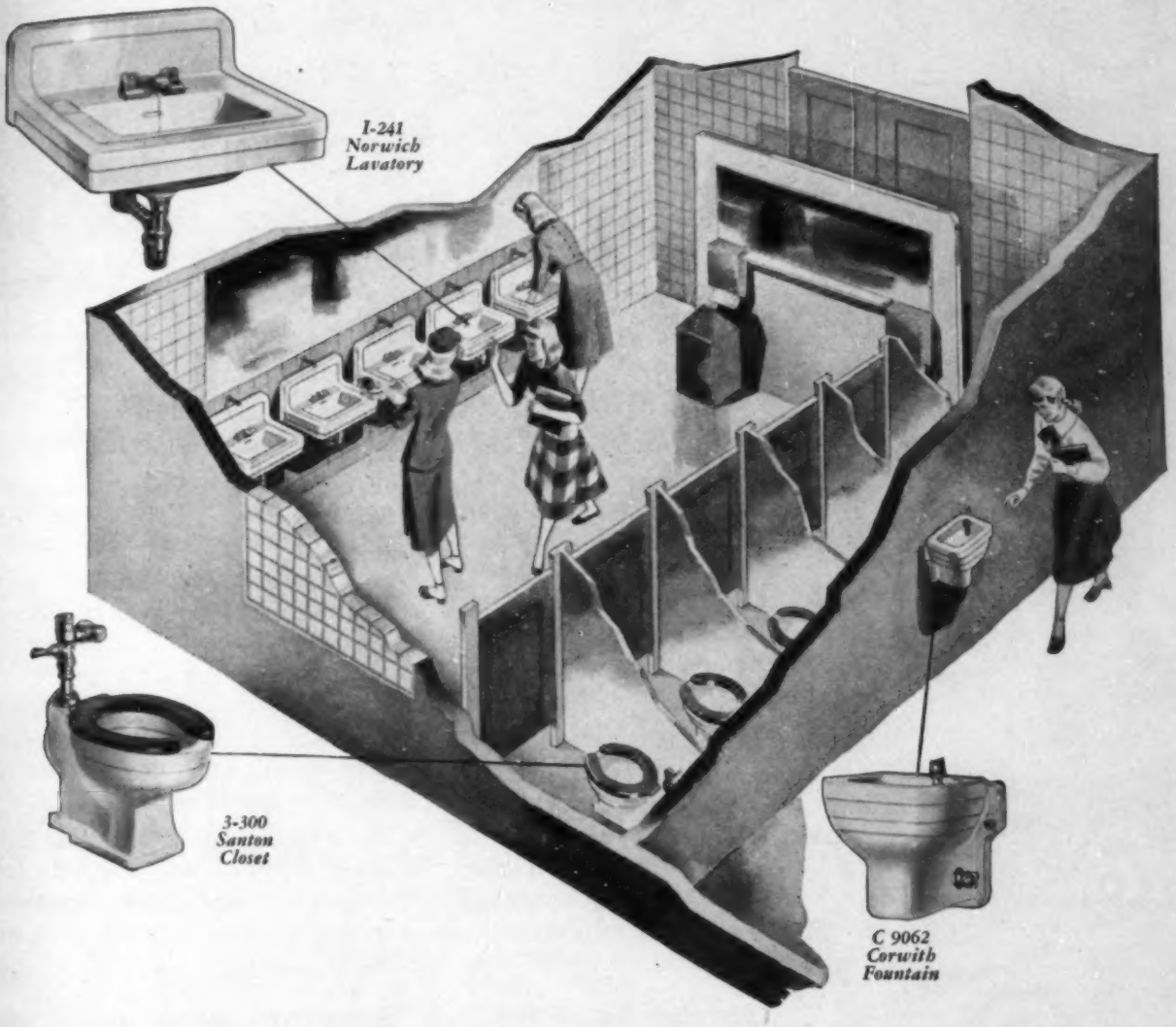

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Those who choose for strength, "quiet service" and economy, invariably choose Carrom Fine Wood Furniture, made by craftsmen who "build for the decades."

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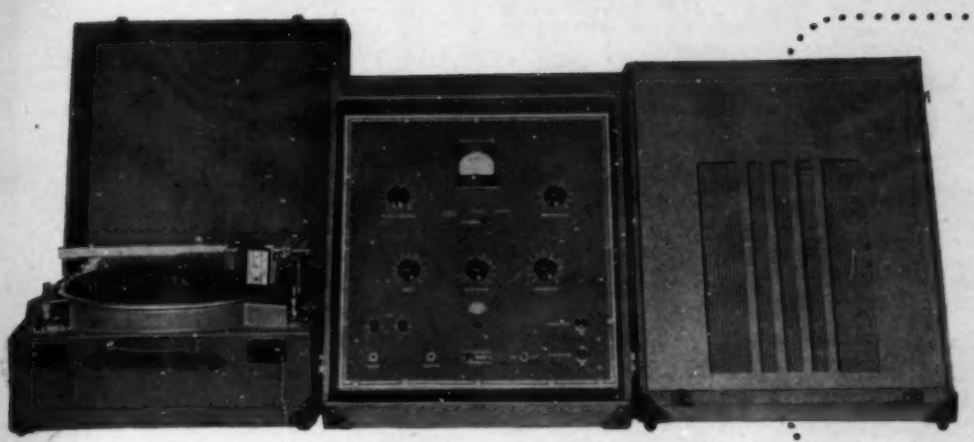

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PRESTO Portable Microgroove Recorders

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- ✓ **Cuts recording costs in half**
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- ✓ **More than twice as much recording to a side**

THESE new recorders are the Presto K-10 and Y-3, redesigned versions, for microgroove recording, of the famous K-8 and Y-2. Just think—for every inch of disc on either recorder, there's a full 6¼ minutes of recording. This means much lower recording costs, for you have longer playing time, use fewer discs, and need much less space for your recording library.

More than just a recorder, Presto equipment is also a public address system and a record player.

You know how essential Presto can be for speech correction, voice training and teaching languages. Less obvious, but of equal importance, is the use you'll make of Presto in recording plays, choral work, classroom progress and many other activities in accordance with modern teaching techniques. You can also record notable radio broadcasts.

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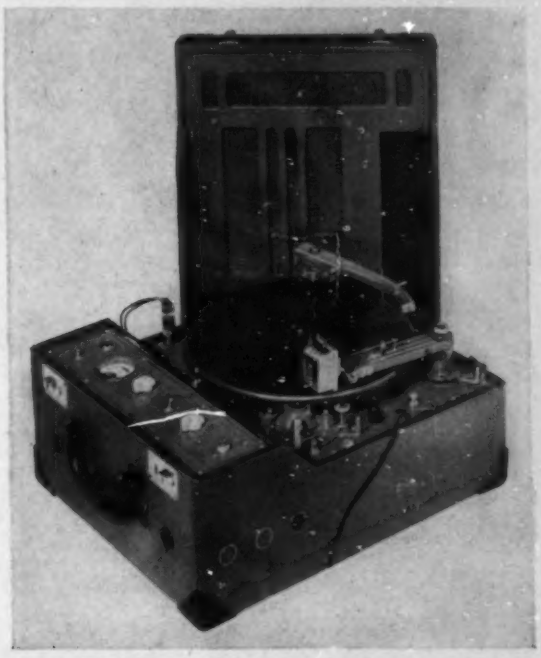
MICROGROOVE calls for an extremely accurate and vibration-free playback turntable. The new Presto consists of a 12-inch, heavy, cast-aluminum turntable mounted on an aluminum panel. Uses two large motors—one for 78, the other for 33⅓ RPM (or available with one motor if only one speed is desired).



K-10 *(above)*—This is the famous time-tested Presto K-8 portable recorder, record player and public address system redesigned for microgroove as well as regular recording. Records 30 minutes on one side of a 13¼-inch disc. Ideally suited for all schools, teachers of speech, music, dramatics.

o

Y-3 *(at top)*—This is the Presto Y-2 portable recorder and playback, redesigned for microgroove as well as regular recording. Records for 15 minutes on only 2¼ inches of a 16-inch disc. One-half hour of high fidelity or 40 minutes of slightly lower fidelity on one side! Fills the need for 16-inch transcription and playback equipment which is easily portable yet capable of producing very high grade recordings.

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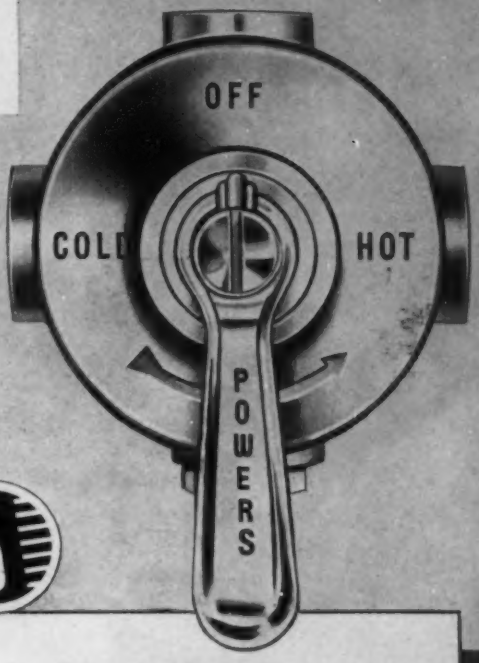

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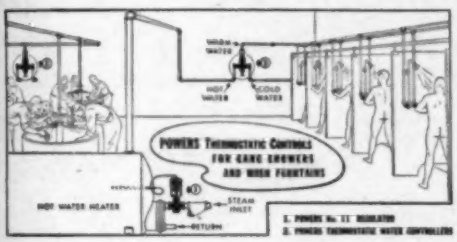
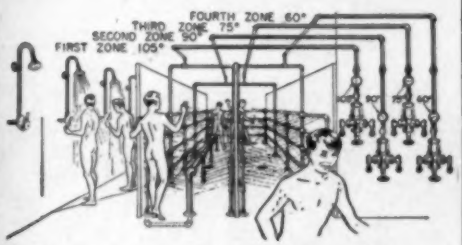
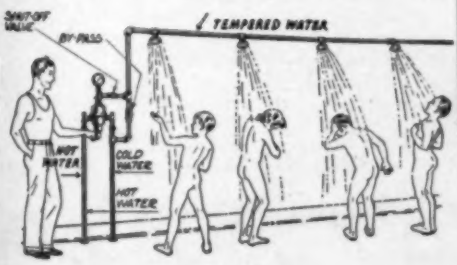


Below: Zone Shower for Swimming Pools



Below: Group Shower with Attendant



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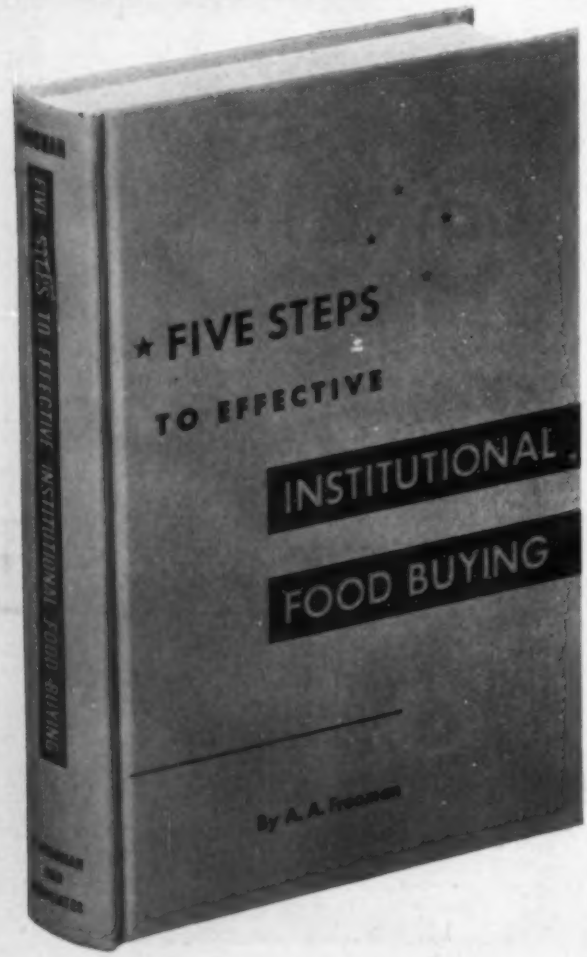

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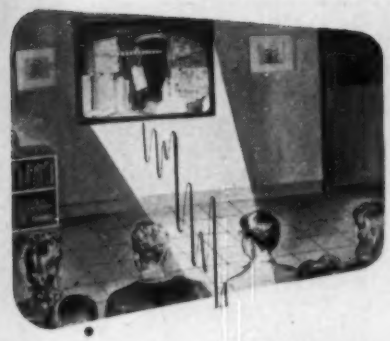

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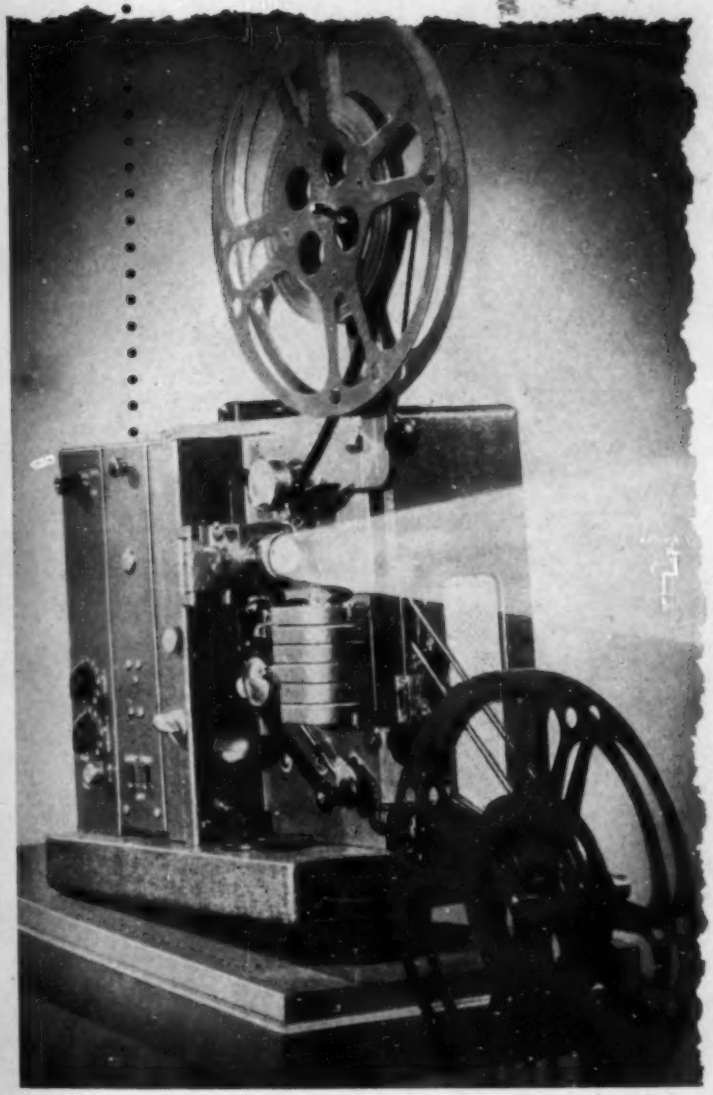

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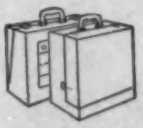

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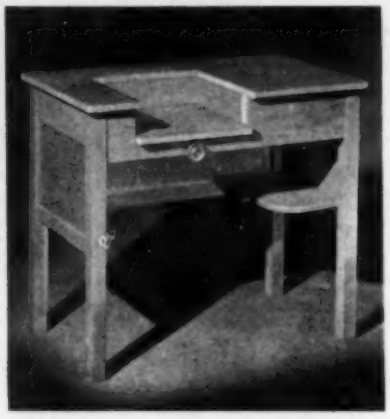

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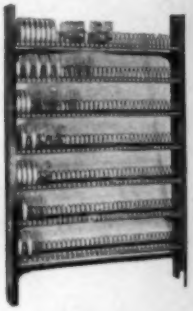

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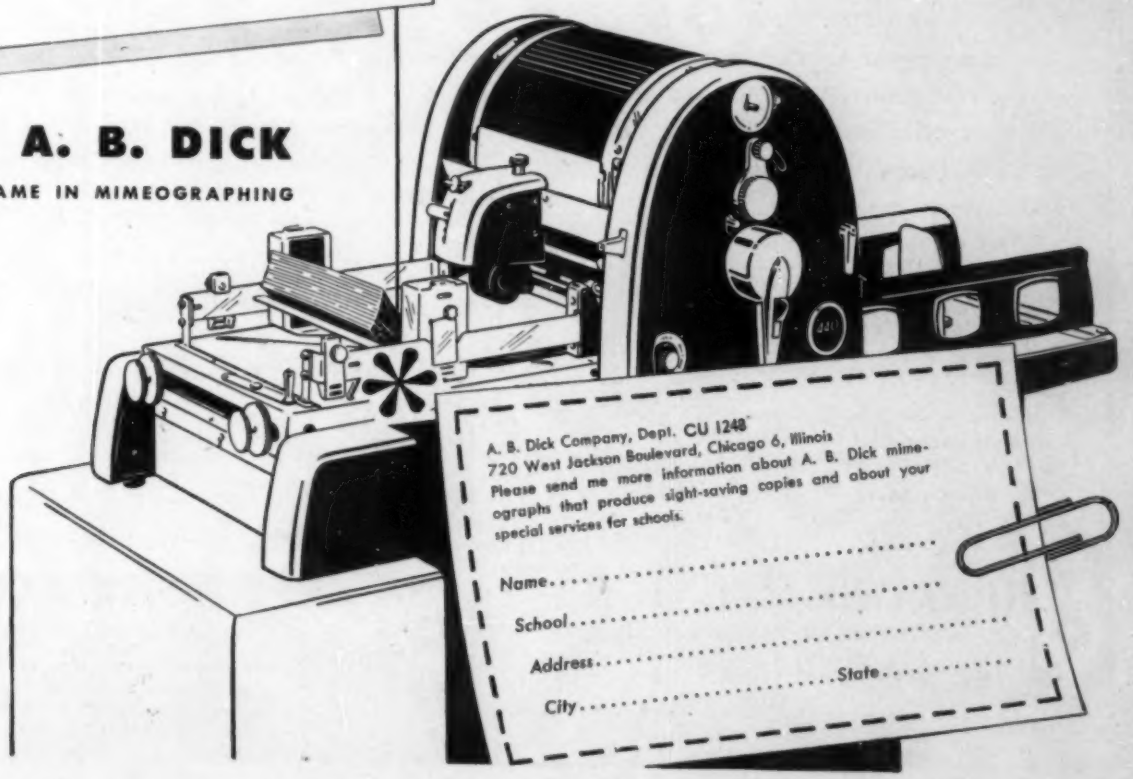

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WORLD'S LEADER IN PUBLIC SEATING
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Speeches, **sermons, exhibits . . .**

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The Finest in Portable Tape Recorders

WEBSTER ELECTRIC
Ekotape
RECORDER-REPRODUCER
WEBSTER ELECTRIC COMPANY
RACINE, WISCONSIN, U. S. A.
WEBSTER
ELECTRIC
$395.00
f.o.b. Racine, plus any sales or other applicable taxes.
Includes carrying case, crystal microphone with detachable base for table or hand use, cords and plugs, and one 10-minute reel of standard magnetic recording tape.

Webster Electric "EKOTAPE" Recorder-Reproducer

Superlative tone quality, more power output, and many valuable and practical features make the new "Ekotape" an exceptionally desirable tape recorder. It is extremely simple to operate. Fast forward and fast rewind speeds and time indicator scales make it easy to locate any desired section of a program, quickly! High and low level input and external speaker jacks add versatility. Designed to meet user's requirements after careful surveys and many interviews with recorder users. A highly versatile, efficient, and dependable recorder with the high quality you expect of a fine musical instrument.

- Superlative Tone Quality
- Faithfully echoes speech, music, and sounds
- Simplified threading; dependable operation
- Absolute freedom from wow and flutter
- Dual channels of amplification
- Large high quality 8-inch speaker
- Fast forward and rewind speeds
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- Electronic Recording volume indicator
- Separate bass and treble tone controls
- Uses any standard magnetic recording tape

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Please send me, without obligation, literature fully describing the new "Ekotape" recorder-reproducer.

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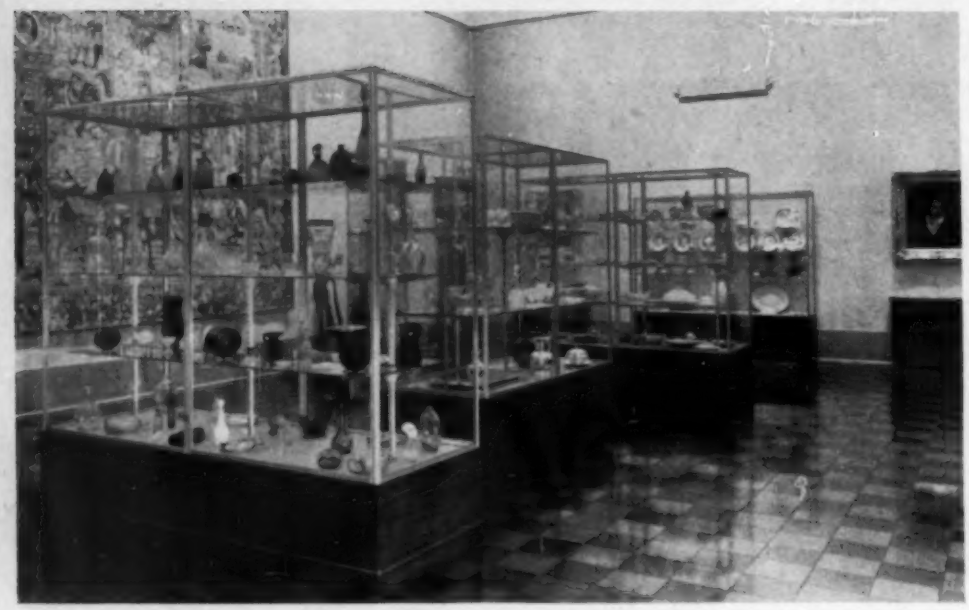
In a Class by Themselves
MICHAELS "Time-Tight" Cases



Michaels exhibit cases are used extensively by colleges and universities. They are designed for beauty as well as utility, and built of the finest materials obtainable. "Time-Tight" cases are available in a wide range of standard sizes and styles, or will be built to meet your specifications. Cases are theftproof, dustproof, and possess many outstanding constructional features. Write for literature containing complete information.

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MUSEUM CASE DIVISION OF **The MICHAELS ART BRONZE CO., Inc., Covington, Kentucky**

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An ALL STAR Finish

Hillyard's STAR GYM FINISH produces a surface for fast, sure-footed playing . . . a light beautiful floor for physical education and is a sturdy finish for dancing . . . being transparent it displays the grain and evenness of the wood, and is easy to keep clean and maintain.

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There is a Hillyard "Maintaineer" near you. Call or wire us for his advice and recommendations on any type floor. His cooperation and advice are given without cost or obligation to you.

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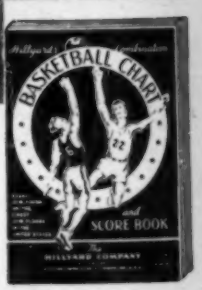
. . . write for your free copy of the NEW Basketball Chart and Scorebook. Full of information about gym floors and has many charts for keeping score.



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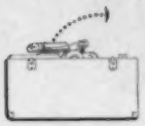
this *new* kind of PORTABLE Projector

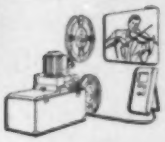
for 16mm. sound pictures offers you these 4 big features

The Ampro Compact has been built for those who need a portable, single-case quality projector at a popular price. It is a *basically new type* of portable projector which brings you:

1. New Amazingly Compact One-Case Unit
A complete full size 16mm. sound picture projection outfit—including projector, amplifier, detachable 8" speaker and cord, plus room for extra 400' reel and film—all in one portable case. Measures only 15" x 21½" x 9¼". Speaker can be instantly removed and set up near screen for best sound reproduction.



2. New Remarkably Quick Set-Up
Through new, counterbalancing mechanism, projector swings up into operating position in one easy movement. Permanently attached reel arms swing quickly into position—and in less than ten seconds the Ampro Compact is ready to thread, connect and operate.

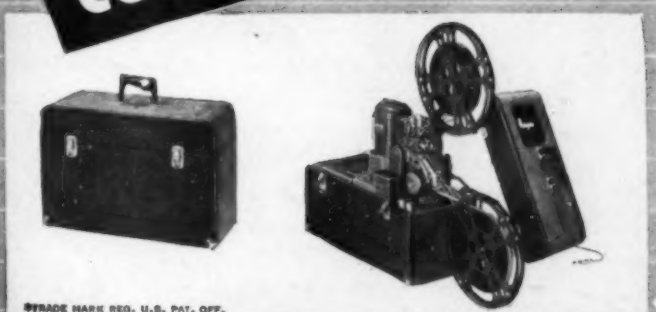


3. Full Professional Quality Projection
The many Ampro quality features, tested in thousands of projectors over many years and through millions of performances, are fully maintained. Not a new untried unit—but rather an ingenious adaptation of a proven 16mm. sound projector. Unusually quiet-running.

4. 100% Availability for Quick Servicing... The entire chassis of the Ampro Compact can be removed quickly and easily from the case. This is the only portable one-case 16mm. sound projector that offers 100% convenient availability for both mechanical and electrical servicing.

Plus New Lower Price and many other new features
Including a new free flow streamlined cooling system—and special cushioning to protect projector mechanism against shocks. An ideal unit for both silent and sound projection for moderate sized audiences where compactness, ease of set-up, portability, quality of projection, are important factors.

AMPRO COMPACT*



*TRADE MARK REG. U.S. PAT. OFF.

Send for Booklets

Mail coupon for full details on the new Ampro Compact. Also send 10c for interesting booklet "The Amazing Story of 16mm. Sound Motion Pictures" (the illustrated story of how sound pictures are made and projected)—and FREE copy of "A New Tool for Teaching" (the story of sound films in the classroom)—These informative booklets will be mailed to you postpaid.

CUB 1248

AMPRO CORPORATION, 2835 N. Western A...
Chicago 18, Ill.

Please send me full details and price of the new Ampro Compact Projector.

☐ I enclose 10c for a copy of the illustrated booklet, "The Amazing Story of 16mm. Sound Motion Pictures."

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That's the way to guard hardwood floors . . . to protect your floor investment. PYRA-SEAL treatment gives floors a hard, lustrous, beautiful finish that resists spotting and staining. And, because PYRA-SEAL *seals the pores* in the floors, the protection lasts so long. That's why PYRA-SEAL outwears ordinary finishes many times over . . . why it is the most practical . . . most enduring . . . and most economical floor treatment for wood floors.

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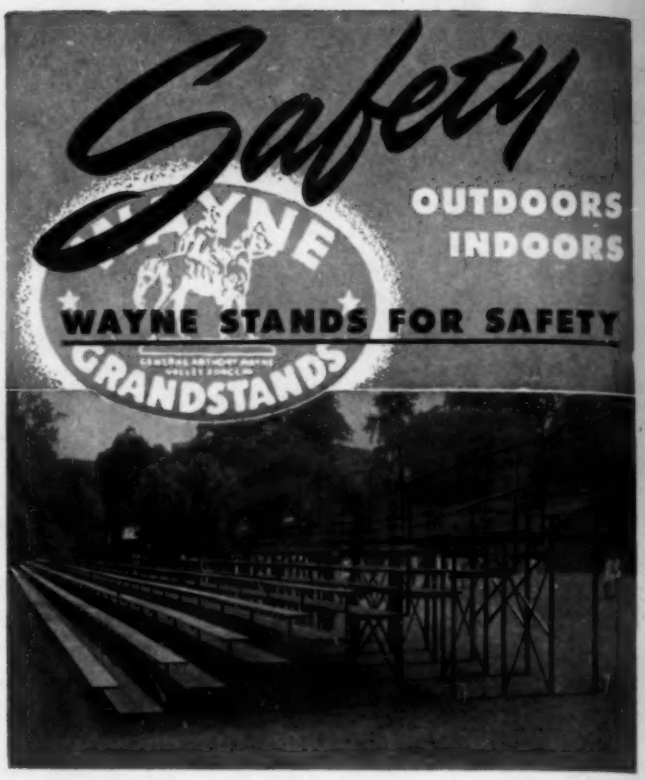

TYPE "H"—Made, at present time, in 15 ft. units, up to 15 rows high. Units up to 6 rows can be moved bodily without dismantling.

FOR assurance of absolute safety, your best bet is a Wayne Grandstand. And, in addition to safety, it offers economy and comfort as well. Representative of the wide line of Wayne stands are the Type "H" Portable Steel Grandstand for outdoors and the Rolling Gymstand for gymnasium use—either offers the *safest* seating you can buy.

The Type "H" is furnished in 15 foot units containing up to 15 rows. Units up to 6 rows can be moved bodily without dismantling. Where stand is not frequently moved, a continuous Type "H" stand offers greater economy.

For indoor seating, the Wayne Rolling Gymstand recommends itself by the space it saves when not in use. Closed, it folds against the wall to present a flat vertical surface, or the movable type may be rolled to other locations. Opened, the stand is sturdy with maximum visibility—plus absolute safety.

Send us the measurements of your present or proposed gymnasium for our engineer's recommendation and estimate. Catalogs furnished on request.

ROLLING GYMSTAND—One continuous operation by one person opens or closes the Rolling Gymstand.

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REPRESENTATIVES IN 42 CITIES
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FULL Standard Size
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12½" High

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NEW Wear-Resistant Self-Lubricating Composition Slide

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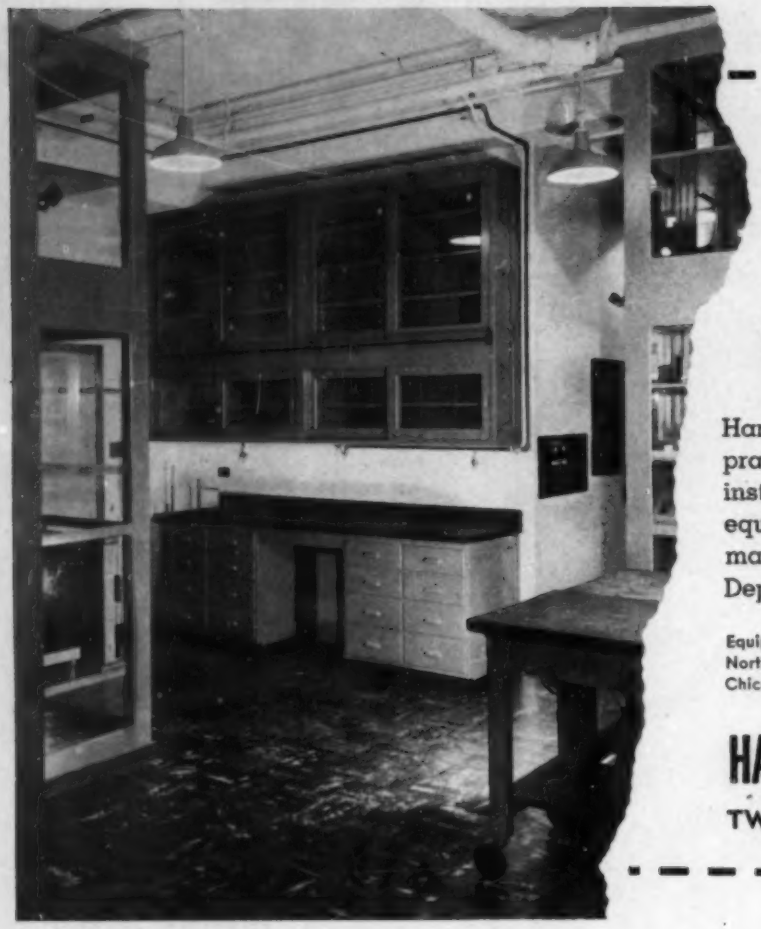
$97.50!

Write FOR LITERATURE to Bausch & Lomb Optical Co. 767-Y St. Paul St., Rochester 2, N.Y.



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Hamilton offers a creative planning service for practical advice on your individual laboratory installation problems, and modern, functional equipment to fit your specifications. Let us make your planning problems easy. Write Department CUB-12-48 for complete information.

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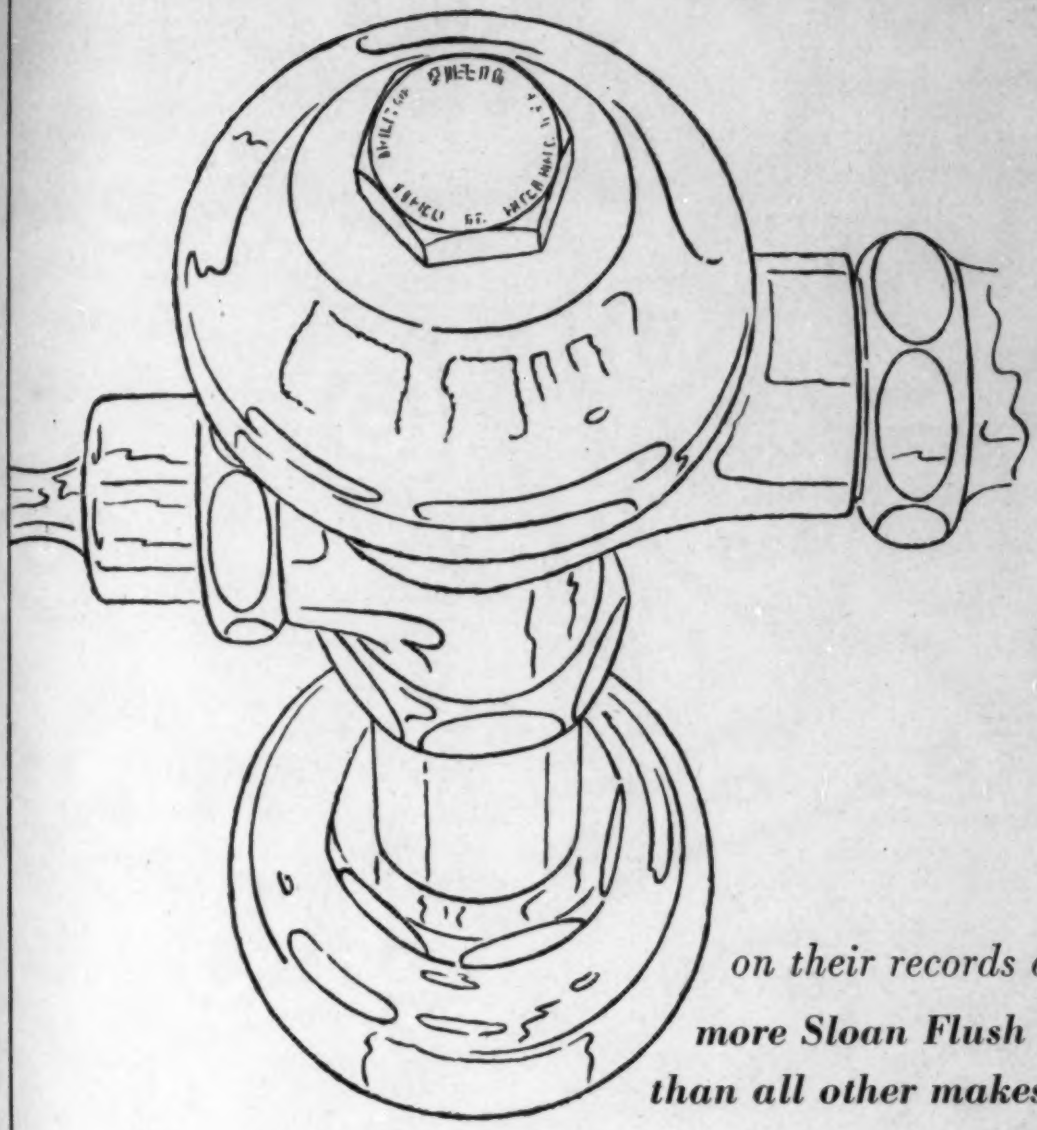
NEW LOOK

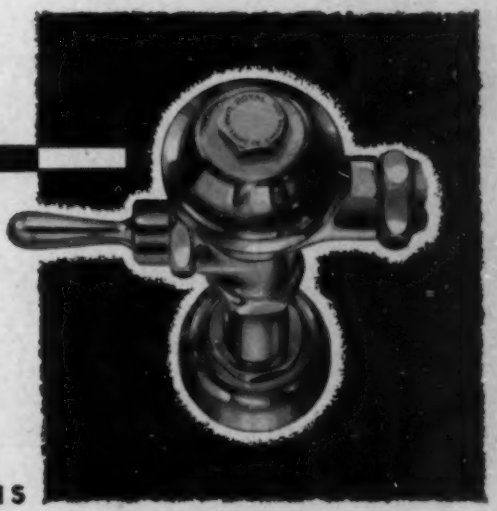
College and University Business for

JANUARY 1949



on their records of performance,
more Sloan Flush Valves are sold
than all other makes combined

SLOAN *Flush* VALVES



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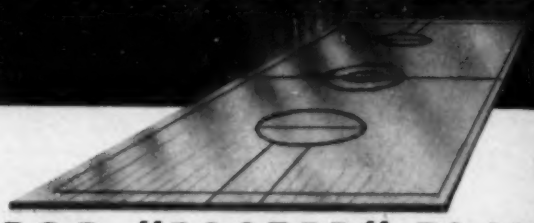
DOLCOROCK
High Surface Floor Coating



FOR "FASTER" PLAYS ON SAFER GYM FLOORS

DOLCOROCK imparts a brilliant, glossy finish to your gym floor—like an extra layer of crystal-clear quartz!

Having a high coefficient of friction, DOLCOROCK cuts down "slide"—really makes games "faster" by permitting sudden starts and stops while reducing slipping. That means an extra margin of safety for sports participants. Spectators, too, like DOLCOROCK'S attractive lustre.

Virtually impervious to grease, dirt, ordinary acids and alkalis . . . easy to apply and maintain . . . equally correct for hardwood, cement and magnesite floors.

Write for the comprehensive DOLGE booklet "Floor Maintenance"

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$1.75

Lots of 24, Each.....
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2E-135 — Flexible arm, bronze finish, wired with 6 ft. of rubber covered cord, unbreakable rubber plug, turn button socket. Maximum height 12½ in., extends to 17 in., metal shade 6½ in. 6 in carton, no less sold. ORDER NOW.

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CUB 12-48

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POSITIONS WANTED

College Administrative Officer—Age 35; graduate degrees; registered engineer; presently serving as junior college president; familiar with all phases of college operation; desires administrative position at college or university; available at early date. Write Box CW 43, COLLEGE AND UNIVERSITY BUSINESS.

Food Manager or Purchasing Agent—American, married, no children, age 49; 30 years' experience in all branches of hotels, colleges, schools and camps. Write Box CW 44, COLLEGE AND UNIVERSITY BUSINESS.

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FOR SALE

Dimmer Switch-board, 16—4000 watt transformer type dimmers with cross connecting panel and 4 section control masters. For full details, write: Pete Radio and Camera Sales, Zion, Illinois.

The rates for want advertisements are: 10 cents a word; minimum charge, $2.50.

Address replies to
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919 N. Michigan Avenue, Chicago 11, Ill.

It's *Goodform* for Smarter Seating

REG. U. S. PAT. OFF.

Chair illustrated is No. 4310.

SMARTLY styled of modern materials, this new Goodform —No. 4310—meets the need for a good-looking, serviceable chair for the dance floor, assembly room, recreation hall or gymnasium.

Designed to please the eye, it also provides an unusually comfortable seat. The silvery gleam of natural aluminum contrasts richly with upholstery in any color and fabric you select to fit your decorative plan. With cushioning of deep, luxurious foam rubber, you provide the utmost in restful comfort for students and guests.

The chair frame of welded aluminum is strong, light in weight and fireproof. There are no joints to loosen. Satin-smooth surfaces and edges do not roughen or splinter to damage clothing. The sparkling anodic finish keeps its brilliance through the years, easily cleaned with soap and water.

The trend today is toward smart seating that is comfortable, too. You can have both with Goodform Aluminum Chairs. Write for our Institutional Chair Catalog and the name and address of the nearest GF distributor.

GOODFORM

ALUMINUM CHAIRS

A product of **THE GENERAL FIREPROOFING COMPANY**

DEPARTMENT 5-12
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There is a complete line of GF metal furniture—desks, tables, chairs, files and shelving

Mr. Higby's public was riding for a fall

Somebody had their signals mixed. The railroad needed goodwill. Yet passengers kept falling on a slippery marble ramp in the station . . . and filed 4 to 5 claims for injuries every week. Finally, Mr. Higby SOS'd for a Legge Safety Engineer. The Legge man spotted the trouble —soap used to clean the ramp. With Legge Non-Slip cleaning methods, he reduced the slips to a few a year.

"School Within A School" Plan Makes Your Floors Safe

You can protect *your* public—your students and teachers—against slippery floor accidents (and your institution against liability). Legge Safety Engineers teach your maintenance people scientific floor-care methods and safety procedures. How you get this service *free* is told in our booklet, *Mr. Higby Learned About Floor Safety the Hard Way.*

It also tells how Legge-kept floors reduce slips and falls up to 98%, are endorsed by leading casualty insurance companies, yet cost less to maintain. For your free, no-obligation copy, clip the coupon to your letterhead and mail.

Walter G. Legge Company Inc., New York 18, N. Y. Branch offices in principal cities.

LEGGE SYSTEM *of Non-Slip Floor Maintenance*

Walter G. Legge Company Inc.
11 W. 42nd St., N. Y. 18, N. Y.
Please send me your free "Mr. Higby" book.

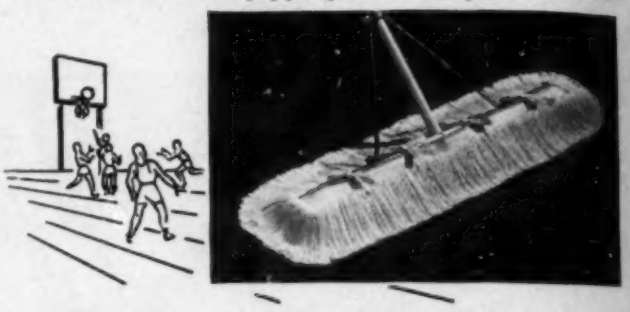
Signed.....

Title.....

Type of floor.....

Area ..... *sq. ft.* C-A2

REDUCE *the cost of mopping class-room, gym, and all your floors*



"BIG X" DUST MOPS

made in various widths especially for school requirements

"BIG X"—a giant mop that keeps large-area floors spick and span with a minimum of time consumption. "BIG X" glides smoothly over floor surfaces; snatches up dust on contact. Husky —wears longer, too. Can be removed from block for washing! Order—and insist on getting —"BIG X" Dust Mops. Your supply jobber has them or can get them for you from

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MADE TO LAST...AND COST YOU LESS!

The two-ply, triple-twisted, high quality yarns used in McArthur Super-Gym and Super-Turk Gym Towels mean greater strength without added weight for longer service and lower laundry costs. Double thread weave . . . heavy corded tape edge . . . 20" x 40" shrunk size . . . choice of color stripe down the side. Write for information on the complete McArthur towel price range . . . the free towel repair service . . . and for a towel plan especially designed for your school. Write Geo. McArthur & Sons, Inc., Baraboo, Wisconsin.

McARTHUR SCHOOL TOWELS

This is the Wakefield *Commodore*

Shown here is the distribution curve for the Commodore No. 369, plotted by Electrical Testing Laboratories. All Commodores are Underwriters Approved.

. . . an Economical Incandescent Luminaire for Classrooms, Offices and Drafting Rooms

The Wakefield Commodore is being used with marked success in one of the experimental rooms of Rosedale School in Austin, Texas, where the concept of the coordinated classroom as the answer to good lighting was developed. When the elements of decoration, daylight control and seating were brought into balance, it was shown that the luminous indirect Commodore unit provides a quality and a quantity of illumination contributing remarkably to an environment in which seeing is relatively effortless.

Of particular interest is the fact that Commodores are economical to install and maintain. And they are adaptable to practically any lighting requirement since they are manufactured in a complete series for wattages from 200W to 1000W, with all hangers and reflectors uniformly styled. The white molded Plaskon reflectors are made in diameters from 15 to 26 inches, varying in wall thickness to insure uniformity of brightness throughout any installation. The hangers are aluminum, finished in satin aluminum.

For complete data on the Wakefield Commodore, write for Catalog 48A. The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield Over-ALL Lighting

FOR OFFICE • DRAFTING ROOM • STORE AND SCHOOL

DES. PAT. 148, 191

THE STAR — THE GRENADIER IV — THE COMMODORE — THE DIPLOMAT

WHAT'S NEW

DECEMBER, 1948
Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 40. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Film Reader-Desk

Reference to micro-records can be facilitated through the use of the new Film-a-record Reader-Desk. The unit permits fast service and the manufacturer reports testing an inexperienced operator who could load the reader and locate any image on a 100 foot roll of indexed film in less than 60 seconds without leaving her chair.

Film can be moved through the Reader-Desk in either direction as fast as 150 feet per minute and brought to a full stop instantly by turning a single control knob, thus leaving one hand free for transcriptions. Loading, focusing and image positioning are all accomplished in a recess located at the base of the screen. A 14 by 14 inch screen enlarges documents to original size or larger and the scientific tilt and specially coated screen reduce eye strain. All parts can be easily reached for cleaning, inspection or servicing and the unit is 36 by 27 inches, 32½ inches high. **Remington Rand Inc., Photo Records Div., Dept. CUB, 315 Fourth Ave., New York 10. (Key No. 568)**

Steel-Wood Shelving

A new line of steel-wood shelving has been announced which is easy to set up, dismantle or rearrange because there are few parts to handle. All upright members are steel and the hardwood shelves are steel reenforced. A clip and stud system permits quick and easy shelf adjustment and vise-tight assembly of shelf to upright. The shelving is strong and safe, rigid and free standing and requires no bracing to wall or ceiling. **Lyon Metal Products, Inc., Dept. CUB, Aurora, Ill. (Key No. 569)**

"Coronized" Fiberglas

Curtain and drapery material of "Coronized" Fiberglas is now available to reduce fire hazard where it is part of the decorating scheme. The Coronizing process provides fabrics woven of Fiberglas yarns with a permanent soft feel and good draping characteristics. In addition to its fireproof qualities, the fabric is mildewproof, not affected by moths, silver fish and other fiber eating insects, is wrinkleproof and water-repellent and has stood up under hot, damp weather tests. It can be hand or machine sewed, hand or machine washed or dry cleaned by conventional methods. Curtains or draperies of the material dry quickly and do not require ironing or stretching. **Owens-Corning Fiberglas Corp., Dept. CUB, Nicholas Bldg., Toledo 1, Ohio. (Key No. 570)**

Corrugated-Sponge Matting

A new type of floor matting has been introduced which combines long wearing qualities with exceptional resiliency. A ⅛ inch corrugated rubber matting black solid top surface is applied to a 3/16 inch sponge rubber base to form the new Corrugated-Sponge rubber matting. It is designed for use in laboratories, back of registration desks and in other places where individuals must stand since the combination matting provides comfort and silence while helping to reduce fatigue. It is provided in 36 inch widths in lengths up to 25 yards. **American Mat Corporation, Dept. CUB, 1719 Adams St., Toledo 1, Ohio. (Key No. 571)**

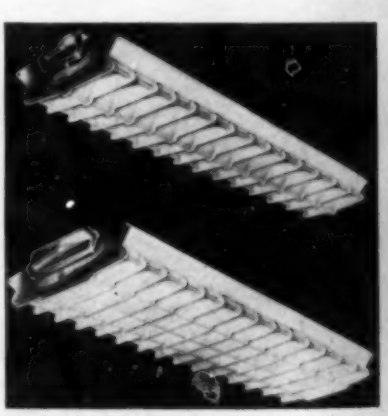
Pyrex Ball and Socket Joint

A complete line of Pyrex brand ball and socket joint apparatus is now available. The standard basic line has been developed to provide flexibility and speed to apparatus assembly in the laboratory. Time is saved with the new units with no loss in accuracy since each piece is individually tested before shipment to assure superior operation under vacuum. Ball joints cannot freeze, thus saving time also in disassembly. **Corning Glass Works, Dept. CUB, Corning, N. Y. (Key No. 572)**

Lenox Fluorescent Fixtures

Two years of intensive research have resulted in the twin Lenox fluorescent fixtures with advanced design, low brightness ratios and simplicity of installation and maintenance. Known as the Lenox-2 and Lenox-4, the fixtures are of all-metal construction, rigidly assembled of die-formed parts. Press welding and interlocking louvers assure long life and stability.

The basic chassis can be used for individual unit or continuous installations. Knockouts and mounting holes are provided for either surface or suspension mounting. The patented A-J Hangers are available in 2 standard stock lengths and are equipped with a concealed adjustment feature for leveling fixtures after installation. Louvers are arranged for correct shielding and are spaced for easy cleaning. Maintenance can be handled without complete removal of the fixtures. The Lenox-2 accommodates two 48 inch 40 watt fluorescent lamps and the Lenox-4 accommodates four. Both fixtures have louvers and side panels finished in baked super-white enamel with ends and hangers



in baked luster aluminum enamel. **Day-Brite Lighting, Inc., Dept. CUB, 5411 Bulwer Ave., St. Louis 7, Mo. (Key No. 573)**

Montgomery Timers

The new type TP and TS timers developed by Montgomery have a simplified type of mechanism which is enclosed in a rugged steel case finished in permanent black wrinkle. The dual-disc face allows ease of setting up the desired program but does not indicate the time of day, thus not being subject to Federal excise tax charges.

The Model TP is designed primarily for bell ringing or signaling purposes and will make a single circuit contact at any 5 minute interval during a 24 hour period and repeat each day. The ringing period is adjustable from 1 to 30 seconds. The Model TS incorporates a holding circuit and can be set to turn lights or equipment on and off automatically at a set time during the 24 hour period. **Montgomery Mfg. Co., Dept. CUB, 549 W. Washington Blvd., Chicago 6. (Key No. 574)**

RMC Transcription Player

The new RMC Transcription Player is designed and built to provide a fine tone, dependable, low priced transcription player. Model TP-16C is sturdily built for trouble-free performance and designed to meet school needs for realistic reproduction of transcription records up to 16 inches, 78 or 33 1/3 r.p.m. The unit has constant speed, heavy duty motors, providing silent, smooth operation. It is housed in a black leatherette covered carrying case for easy portability. **Radio Music Corp., Dept. CUB, Port Chester, N. Y. (Key No. 575)**

Underwood Duplex Carbon and Fabric Ribbon Machine

The new Underwood Typewriter equipped with Duplex Carbon and Fabric Ribbon feature permits its use for high quality lithographic reproductions of typewritten material, by either photo offset or direct offset processes. The fabric ribbon feature permits use of the

machine as a general purpose typewriter. The machine is available in the same variety of carriage widths and type styles as are standard Underwood typewriters and has all of the desirable Underwood qualities.

The carbon paper feed mechanism, designed for 400 foot ribbon reels, feeds only when operating the type bar keys and a special mechanism equalizes stress on the ribbon and eliminates breakage. **Underwood Corporation, Dept. CUB, 1 Park Ave., New York 16. (Key No. 576)**

Floor Maintenance Machine

The new improved American DeLuxe Floor Maintenance Machine has the new "Safety Grip" handle and is available in 13, 15 and 17 inch brush spread. Attractively designed, the new machine has highly polished aluminum castings throughout and can be used with a wide selection of brushes and attachments. The machine is designed and powered to handle discing, sanding, polishing, buffing and steel wooling.

The new "Safety Grip" handle can be easily controlled with either hand or both hands. Each handle incorporates a switch for positive off-on action when

gripped, which provides a greater degree of safety. Other improvements include new water resisting composition fiber wheels and a bumper designed to protect furniture. **American Floor Surfacing Machine Co., Dept. CUB, Toledo 4, Ohio. (Key No. 577)**

Plasti-Coat Book Cover

The new Plasti-Coat book cover has been designed to protect books from weather, wear and stain. The line is custom designed for each school, made up in school colors with school name and seal or letter on the front, and the covers are adjustable to fit most textbooks in use from grade schools through college. Standard designs are available for small schools not desiring the school name or seal. The covers are easily fitted on books with only a few simple folds to form a snug fitting cover that protects at every wearing point. **The Colad Company, Inc., Dept. CUB, 1441 Hertel Ave., Buffalo 16, N. Y. (Key No. 578)**

Tablet Arm Chair

A standard tablet arm is now available for attachment to standard Goodform Aluminum Chairs. Made of solid maple, spar varnished, the tablet arm has rear bracket of anodized aluminum. Also the front support, as is the rest of the chair frame, is of anodized aluminum for strength and lightness.

The new tablet arm can be used with three styles in the line of new Goodform aluminum chairs, that illustrated being attached to chair No. 4303. This chair has foam rubber cushioning on seat and backrest with the new Goodform plastic covering material. **General Fireproofing Co., Dept. CUB, Youngstown 1, Ohio. (Key No. 579)**

Bottled Water Cooler

The new Temprite bottled water cooler is designed for cup service where bottled spring water is used. The metal cabinet is attractively finished in baked-on enamel and the cooler has a capacity for cooling 3 gallons per hour to 50 degree drinking water temperature in 90 degree room temperature. It is obtainable with either hermetic or open-type condensing units and the cooler and storage tank are constructed of stainless steel. **Temprite Products Corp., Dept. CUB, 47 Piquette Ave., Detroit 2, Mich. (Key No. 580)**

Interlocking Sash Lock

New hardware for double hung windows has been developed to facilitate locking. The Interlocking Sash Lock is designed to bind the meeting rails together and to lock the sash even when out of alignment. The pull hook used with the lock is designed to interlock both the sash lock and the sash socket and to simplify the closing of windows while eliminating any possibility of breakage or damage. **Detroit Hardware Mfg. Co., Dept. CUB, 1320 Mt. Elliott, Detroit 7, Mich. (Key No. 581)**

Master Time Control

The IBM Master Time Control unit serves as the master control of a self-regulating time system to maintain accurate, uniform time on all time indicating, recording and signaling units throughout the institution. The new Type 91 Master Time Control is a motor-wound, spring-driven marine escapement type with automatic current frequency regulation which is capable of running 6 hours during power interruption. It is not affected by vibration, temperature, humidity or barometric pressure. The streamlined, modern design, incorporating a 9 inch indicating clock, permits use of the unit as a time piece as well as a time control unit. **International Business Machines Corp., Dept. CUB, 590 Madison Ave., New York 22. (Key No. 582)**

Anti-Slip Ceramic Tile

Careful research and development work has gone into a new anti-slip vitrified ceramic tile recently introduced. It is designed to provide the attractive appearance and cleanliness possible with ceramic tile with an anti-slip quality which makes it particularly desirable for use in corridors, entrance lobbies, kitchens, dining rooms and many other parts of the institution.

The new tile has a 15 per cent abrasive content which has passed severe tests with respect to minimum absorption, durability and effectiveness of the anti-slip surface. The abrasive permeates the entire thickness of the tile but is scarcely noticeable in appearance. The low absorption prevents fouling or color loss in the tiles. **The Safe Tread Company, Inc., Dept. CUB, 30 Vesey St., New York 7. (Key No. 583)**

Laundry Antiseptic and Deodorant

Antiseptin, developed for use by the Navy during the war, is now being introduced for use by institutional and commercial laundries to inhibit bacterial growth in laundered fabrics. No new equipment is required for its use as Antiseptin is added as a cold rinse after the regular laundering cycle. In solution it is a clear, straw-colored fluid which is instantly soluble in water and may be used on all fabrics safely.

In addition to its bactericidal qualities, Antiseptin has proved to be an effective deodorant when used in the indicated dilutions for bactericidal action. It is a safe, nontoxic, non-irritating bactericide which not only destroys existing bacteria and opposes sepsis but inhibits bacterial growth in laundered fabrics for long periods of time thus helping to prevent the spread of infection through fabrics. The product is economical and laboratory tests have proved it effective in the indicated dilutions. **Carman & Co., Inc., Dept. CUB, 629 W. 27th St., New York 1. (Key No. 584)**

Kent Floor Conditioner

The new Kent Floor Conditioner offers a complete floor conditioning appliance in one unit. It wet scrubs, waxes, polishes, buffs, sands and steel wools. The streamlined balanced design and two concentric brushes operating in opposite directions provide easily balanced operation. The automatic switch turns the conditioner on when the handle is in the operating position and off when the handle is in vertical position. The motor is built for long service and is permanently lubricated for the life of the machine.

One set of polishing brushes is standard equipment with the new machine. One scrubbing brush, 1 lamb's wool buffer, large polishing brush 9½ inches in diameter and small 5 inch polishing brush are available as de luxe equipment. The conditioner is finished in brown baked enamel finish. **Kent Electric Corp., Dept. CUB, Rome, N. Y. (Key No. 585)**

Improved Photocopy Unit

The new, improved photocopy unit permits the production of professional looking photocopies in your own office quickly and at low cost. The built-in dial-controlled filter simplifies and speeds up the process, making it possible to turn out 60 or more copies per hour. A hard plastic printing surface which ensures uniform contact between copy paper and original and a feature which promotes more even diffusion of light are some of the advantages of the new Apeco Photoexact Copier. **American Photocopy Equipment Co., Dept. CUB, 2849 N. Clark St., Chicago 14. (Key No. 586)**

Amcoin Thermostat

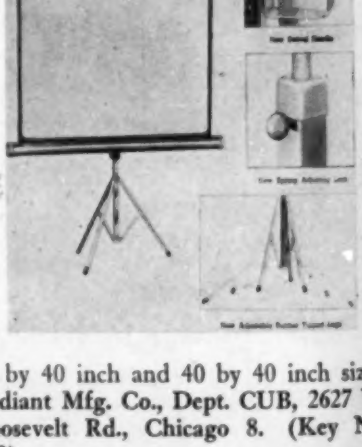
Amcoin All-Glass interior coffee urns are now equipped with the new Amcoin Thermostat which consists of a complete assembly; safety valve, control, solenoid valve for gas or steam heated units and relay for electrically heated units. The new thermostatic assemblies are designed to control the temperature on coffee urns, to regulate pressure and water delivery accurately for coffee making and are fully automatic, requiring no adjustment. They are carefully calibrated and sealed at the factory and are fully guaranteed. **Amcoin Corp., Dept. CUB, 1148 Main St., Buffalo 9, N. Y. (Key No. 587)**

Protractor-Geometrical Rule

A transparent plastic protractor-geometrical rule has been developed which should prove of great assistance to teachers, students, engineers, artists and others. This new all-purpose rule combines twelve instruments in one providing the English scale by 10ths and 16ths of an inch; metric scale by MM's; equilateral and isosceles triangles; 1 inch square; octagon; hexagon; 1 inch circle; ellipse; 5 arcs of circles; 3 inch protractor, and 17 holes for drawing circles. **Plastic Enterprise, Dept. CUB, Canton, Ohio. (Key No. 588)**

Champion Model K Screen

The new Champion Model K portable tripod projection screen has a new swivel handle which folds inward, thus saving space when storing; a new spring adjusting lock which permits fingertip adjustment of the screen to any desired height, and full adjustable rubber tipped tripod legs. This economical, lightweight unit has the streamlined design and all the mechanical advantages of other items in the Radiant line and is available in both



30 by 40 inch and 40 by 40 inch sizes. **Radiant Mfg. Co., Dept. CUB, 2627 W. Roosevelt Rd., Chicago 8. (Key No. 589)**

Non-Slip Floor Polish

Safe-T-San is the name of a new non-slip floor polish designed to reduce the slipperiness of any flooring material. Made of synthetic resins, the product contains no wax, yet dries to a bright finish. The product has proved to be a durable protection for floors, thus simplifying maintenance, while reducing the possibility of slipping. It is easily applied with a lamb's wool mop, is self-leveling and dries in approximately 20 minutes. Safe-T-San is economical and gives floors an attractive finish. **Huntington Laboratories, Inc., Dept. CUB, Huntington, Ind. (Key No. 590)**

Voit Tennis Ball

Voit has announced a new tennis ball which has been completely redesigned. Constructed with a 2 piece pressure chamber, inflated, plugless, natural rubber center vulcanized to an all-wool cover, the new Voit AT1 tennis ball is designed to combine correct resiliency and bounce, long cover wear, high visibility and identical performance in each ball. **W. J. Voit Rubber Corp., Dept. CUB, 1600 E. 25th St., Los Angeles 11, Calif. (Key No. 591)**

Econotherm Steam Generator

The new Dutton Series 40 Econotherm Steam Generator is designed to save considerable space in the installation of package type steam generators. It has many other advantages and improvements including the introduction of preheated secondary air direct to the combustion chamber, eliminating unnecessary resistance; elimination of unnecessary draft which reduces fan speed and results in quieter, smoother operation; boiler feed pump and condensate return system in a separate unit thus giving greater flexibility of boiler room arrangement, and every advantage in safety, economy, combustion efficiency and automatic control. **C. H. Dutton Co., Dept. CUB, Kalamazoo, Mich. (Key No. 592)**

Slimline Germicidal Lamp

General Electric has developed a 36 inch slimline type germicidal lamp capable of operating at four different germ-killing intensities. It is designed for use in conventional fixtures for upper air protection, in ventilating systems to kill germs in circulating air and for protection of foods and other supplies in store rooms. Its smaller size and high ultraviolet output reduce cost while giving effective protection. **General Electric Co., Dept. CUB, Nela Park, Cleveland 12, Ohio. (Key No. 593)**

Product Literature

• **"A New Tool for Teaching"** is the title of a 28 page booklet published by Ampro Corp., 2835 N. Western Ave., Chicago 18. The booklet offers pertinent information on the effective use of audio-visual aids in teaching including the educational advantages of sound films, when and how to use films in the classroom, correlating the instructor's rôle with audio-visual aids, rental and purchase of films, organizing student projectionists and full information on the operation of an Ampro sound projector with cut-away illustrations and each part numbered to correspond with instructional details. **(Key No. 594)**

• As its title indicates, **"Accessories for Your 16 mm. Sound Projector"** is a folder listing booster amplifiers, single and dual speed turntables, projection lenses, microphones and stands, extension cords, reels and other accessories for use with 16 mm. projector equipment. Complete information with prices is included in the folder issued by Natco, Inc., 505 N. Sacramento Blvd., Chicago 12. **(Key No. 595)**

• A new **16 mm. Film Equipment Catalog** has been issued by Neumade Products Corp., 427 W. 42nd St., New York 18. Complete information is included on file and storage cabinets, film cleaning machines, editing and cutting tables, film racks, splicers, film handling and shipping aids, reels, cans and accessories. **(Key No. 596)**

• Information on the new **Magnesium Folding Chairs** developed by Louis Rastetter and Sons Co., Fort Wayne 1, Ind., is given in a folder issued by that company. Simplicity of folding, flat stacking qualities, light weight and attractive appearance are some of the points covered. **(Key No. 597)**

• A new roofing repair process system developed by United Laboratories, Inc., 16801 Euclid Ave., Cleveland 12, Ohio, is described in a brochure published by that company. Entitled **"Protect That Roof! . . . it's good insurance,"** the brochure gives complete details on why good roof protection is essential and on the specific process recommended for each type of roof. **(Key No. 598)**

• **Catalog No. 3-48** issued by The Loxit Moulding Co., 1217 W. Washington Blvd., Chicago 7, gives comprehensive information on metal mouldings and accessories in aluminum, steel and bronze. In addition, the catalog contains information on how to solve some of the unusual problems in connection with the application of mouldings. It is fully illustrated and indexed. **(Key No. 599)**

• The Marble Institute of America, 108 Forster Ave., Mt. Vernon, N. Y., has prepared a handbook on marble, **"Standard Specifications and Scaled Detail Plates of Interior Marble."** It contains complete information for specifying interior and exterior marble, describes marble classifications, finishes and uses and recommends setting materials and procedures. Names and addresses of Institute members are included in the book. **Key No. 600)**

• A new catalog has been issued by S. Blickman, Inc., Weehawken, N. J., covering **"Value Line Stainless Steel Sinks."** Fully illustrated, the new catalog contains complete specifications on the 16 variations of these heavy-duty fully welded sinks with round corner construction, seamless surfaces and lever-handle waste outlet which has an externally operated handle for opening and shutting the valve. The line includes 1, 2 and 3 compartment sinks, all available with 1 or 2 drainboards, on right or left or both, or without drainboards. **(Key No. 601)**

• **"Floors of the Future"** is the title of a leaflet issued by The American Tile & Rubber Co., Trenton, N. J., giving information on Amtico Rubber Tile and Sheet Rubber Flooring. The leaflet is printed in color, showing the marbleized patterns available in this flooring which is described as quiet, resilient, long-wearing and resistant to cigarettes and stains. **(Key No. 602)**

• **Catalog W-55** is a comprehensive, attractively designed and complete 80 page booklet giving full details on the line of drains and plumbing specialities developed by Wade Manufacturing Co., Elgin, Ill. A full index makes it possible for the administrator or mainteance engineer to find information quickly and conveniently on drains, valves, grease interceptors, pumps, sealed air chambers and other products. Type, size, dimension, weight and price of all items are included as well as selector tables for determining roof leader sizes, tabulated information on the correction of water hammer and complete tables for the correct sizing of grease interceptors. **(Key No. 603)**

• **Fire Alarm Systems** for any type building are illustrated and described in a new 8 page booklet covering the Autocall line of fire alarm equipment. Wiring diagrams of the various systems are shown and recommendations are made for specific installations in hospitals, schools and other institutions. Full information on the systems as well as on the punch and printing recorders is given in this catalog, printed in full color, and issued by The Autocall Company, Shelby, Ohio. **(Key No. 604)**

Tailored to Measure

Adaptability is a quality associated with honest craftmanship. As the architect plans his structure to harmonize with the terrain, and the tailor cuts his cloth to the individual measurement, so must a fund-raising firm be prepared to offer its clients methods of campaign procedure flexible enough to meet all contingencies.

B. H. Lawson Associates possesses this quality of adaptability to a great degree. We have one commodity to sell and that is service. But it is service of a special kind.

Our staff of Campaign Directors are not limited to one stereotyped procedure. They have learned the all-around craftsmanship which comes only from long training in every phase of fund-raising work.

Our permanent staff of men, trained in every aspect of campaigning, pride themselves upon our unique method of campaign direction which may be modified to suit the needs of every group. Our specialty is not only the small school campaign for a few hundred thousand dollars, or a school drive for several million. We specialize in all difficult jobs.

No campaign is undertaken by B. H. Lawson Associates without a preliminary survey of the area of solicitation. A representative then visits the area and ascertains the quality of leadership available and the interest shown in the proposed program by the community. When every factor necessary for success has been investigated, then, and only then, is a plan of procedure established, scaled to the size of the undertaking and tailored to the community need.

You are cordially invited to investigate our services. A copy of our informative brochure, "Your Appeal to the Public," will be made available upon written request to Department B-12.

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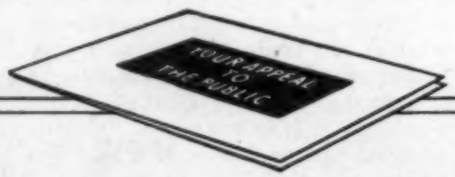
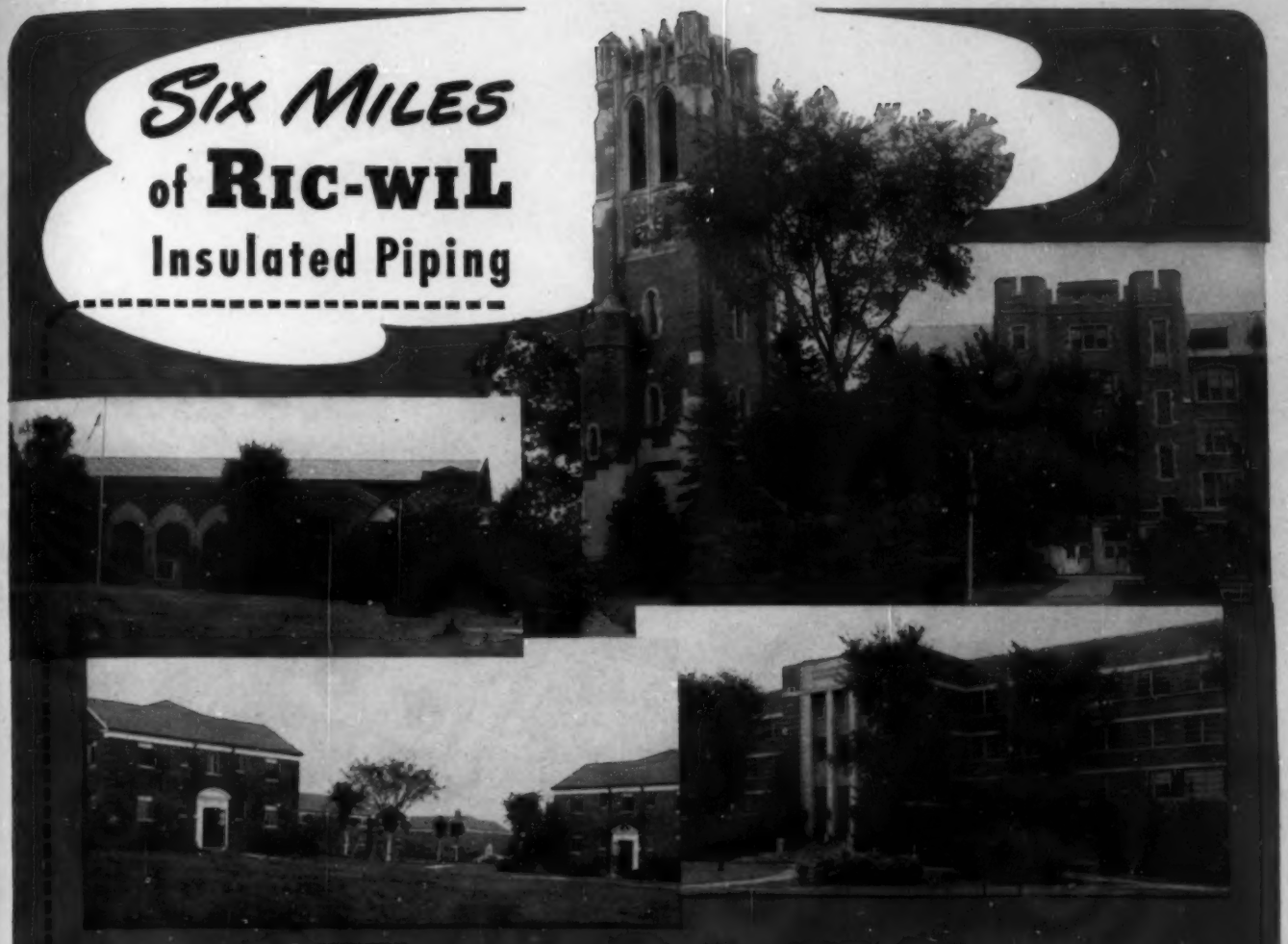


Six Miles of Ric-wiL Insulated Piping



Bring HEAT to this CITY OF LEARNING

THE operation and maintenance of a large educational institution in this postwar era entails far more than the discovery and imparting of knowledge.

Michigan State College is a case in point.

With an enrollment of more than 15,000 students MSC provides living accommodations on the campus for more than 11,000 persons in college operated housing. This is the equivalent of a sizable city and requires all the services a modern city affords—heat, light, power, water, schools, sanitary systems, health service, traffic control, police and fire protection.

MSC's new steam generating plant (left), and a typical run of Ric-wiL Insulated Piping.

To heat the hundreds of buildings comprising this modern "city" MSC recently put into operation one of the most modern, efficient steam generating plants to be found at any educational institution in the country. Capable of producing steam at 250,000 lb. per hour, 350 psi design pressure, 550°F, the new unit increases the capacity of MSC's generating plants to more than double previous capacity and, when finally completed, will raise it to the impressive total of 615,000 lb. per hour.

Significant too, we believe, is the fact that 31,994 feet—more than six miles—of Ric-wiL Insulated Pipe Units have been installed in MSC's central steam distribution system during this period of expansion.

For a case history on Central Heating for Institutions write for Booklet 4713. Address: The Ric-wiL Co., Dept. 10812.

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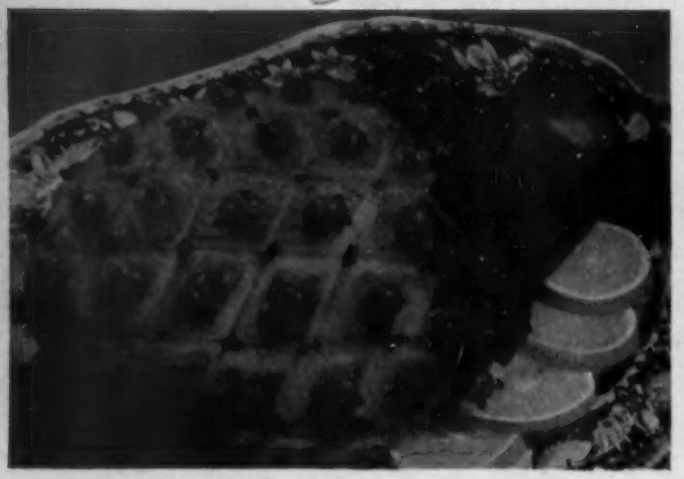

THE *Spice* TELLS

This all-important ingredient for your culinary achievements is so important that Sexton mills its own spices and scientifically packs these to bring them to you in all their rich savoriness. Sexton imports these fine spices from the four corners of the earth. Your investment in your other foods makes the cost of the very finest spices infinitesimal by comparison.

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